

THESIS

I'M FAIRLY CREDIBLE, DON'T YOU THINK? A STUDY OF THE EFFECTS OF
GENDERED LANGUAGE ON SOURCE CREDIBILITY AND PERSUASION

Submitted by

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ABSTRACT

I'M FAIRLY CREDIBLE, DON'T YOU THINK? A STUDY OF THE EFFECTS OF GENDERED LANGUAGE ON SOURCE CREDIBILITY AND PERSUASION

As the Internet introduces new ways of communicating, these fast and reliable forms of computer-mediated communication (CMC) have saturated offices, homes, airports and any other location with access to wireless Internet. Communicating in an instant, with one or with many, has become a staple in today's world. However, the technology once deemed "the great equalizer" has now raised concerns about inequalities and how these differences are manifested and perceived in a world where few cues are portrayed. Concerns about gender discriminations give rise to the question, What is the relationship between perceived gender and online perceptions? An online survey with 252 participants provides insight into gender cues and perceptions in one of the world's most-used resource for communication: email. The results from this survey suggest that users form perceptions of a message's source and the message's persuasiveness through the linguistic cues given, even though cues are reduced in CMC.

Participants read two stimuli messages created to simulate a common email message. Messages were attributed to a female writer, but were written using either masculine or feminine language. Analysis of source credibility and message persuasiveness scales suggest that the use of feminine language creates more positive perceptions of the source and a more persuasive message than messages written using masculine language. Analysis of psychological gender suggest that users who are high in masculine characteristics but low in feminine characteristics are more likely to view all sources as having low credibility, but all messages as being highly persuasive.

As CMC continues to grow in uses and popularity, businesses, employers, and every-day users are creating perceptions of themselves through the limited cues they are able to provide given the medium. However, users do base perceptions of the source and the message from these cues. For women using CMC as a daily function, understanding how these cues are perceived can help them succeed in a gender-biased world.

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CHAPTER 1. INTRODUCTION

“Words are not simply tools which we can use in any way we see fit. They come to us framed by specific histories of use and meaning, and are products of particular ideological struggles” (Wilber, 1997, p. 6).

As computer-mediated communication (CMC) becomes increasingly integrated into our daily lives, understanding how electronic messages are perceived becomes more and more vital to our ability to communicate in the ways that we intend. Although CMC was originally believed to be an “identity-free” context because of its lack of bodily cues (Andersen, 1985; Trees & Manuzov, 1998; Goldsmidt, 2000), research has shown that offline identities can remain a powerful force in perceptions of communication, individuals, and relationships (Thomson & Murachaver, 2001; Thomson, Murachaver & Green, 2001; Herring 2003).

Scholars argue that people have a need to construct social identities and realities when they communicate online as well as offline; therefore, even in environments that offer few identity cues such as text chat, people make assumptions about those they encounter based on the few cues that are given (Walther, 1992). Especially in asynchronous, text-only media such as email, these assumptions are largely based on linguistic features, including vocabulary, grammar, spelling, punctuation, and CMC-specific notation such as emoticons (e.g., :[, a frown). The use of such features have been found to vary based on a range of factors, including identity characteristics such as age, gender, race and class (Thomson & Murachaver, 2001). This thesis focuses on ways in

which gender identity is read and interpreted in CMC settings, especially in relation to perceptions of message sources and persuasive power.

Of particular interest to this project is research that has found that men and women use language in different ways (Thorne & Henley, 1975; Thakerar, Giles, & Cheshire, 1982; Bilous & Krauss, 1988; Thomson, Murachver & Green, 2001). For instance, men tend to use more direct statements that are ranked high in dynamism, where women tend to use linguistic styles that are high in aesthetic quality and sociointellectual status (Palomares, 2004). Different linguistic features not only occur in verbal speech, but also appear in written forms including CMC, although some gendered language features shift to accommodate the medium. For example, emotionally expressive emoticons and exclamation points are used frequently in CMC in lieu of non-verbal cues such as tone of voice and facial expressions. Because language in CMC is the “primary method by which communicators pass judgment on and form impressions of others due to the reduced cues available” (Palomares, 2004, p. 561), understanding how gendered language influences the thoughts and feelings one has toward a message and its creator in CMC is paramount.

To explore how gendered language influences the ways in which messages are perceived in computer-mediated communication, this project used a two (men and women participants) by two (masculine and feminine message language) between-subjects experiment. Participants were randomly assigned to read an email message signed by a female author but written with either masculine or feminine language style. In an online survey, each participant read and assessed a messages about time management and one about finances, and were asked to assess the credibility of the source and the persuasiveness of each message.

Expectancy Theory and theories of gender role conflict suggest that when individuals violate expected norms and roles around gender and other identity expectations or stereotypes, negative consequences can result (Burgoon et al., 1991). This research theorized, therefore, that messages that violate participants' gendered language expectations will have a negative effect on perceptions of source credibility and persuasion. Some literature suggests further that women are more likely to violate gender proscriptions and might be more open to others' violations of them. This project theorizes further then that male participants will demonstrate stronger negative reactions to gendered language violations than women will.

One difficulty in researching Expectancy Violation Theory is that expectations vary across contexts and among individuals. In other words, it may take much more to violate one person's expectations than it does another's, as one person may have a greater tolerance for violations than another. Gender role theory suggests that gender roles (Eagly, 1987) and psychological gender (Bem, 1974) may also influence perceptions of gender violations. Social Role Theory "explains roles by presuming that persons are members of social positions and hold expectations for their own behaviors and those of other persons" (Biddle, 1986, p. 67) and assumes that these roles can alter depending on the situation and people involved. Eagly, Wood and Diekmann (2000) apply social role theory to sex to explain how one takes on the stereotypical role of one's gender. However, they also recognize that these roles are "mediated by psychological and social processes" (p. 227). Psychological gender as measured by Bem (1974) is different from biological gender in that biological gender is binary, either male or female, while psychological gender allows for the possibility that any one might exhibit characteristics

from both masculine and feminine gender roles. Thus individuals can be classified into one of four categories--masculine, feminine, neutral and androgynous. Psychological gender is based on one's behavior and internal self, which may or may not be the same as biological gender. Tolerance for gendered language violations, then, may depend in part on individuals' *psychological* gender, rather than binary gender (male or female). For example, a woman high in both masculinity and femininity might be less sensitive to gendered language violations than a woman high in femininity but low in masculinity.

Gender role flexibility may also influence tolerance for gender role violations. Gender role flexibility is determined by how easily individuals shift gender roles to accommodate different social situations (Martey, 2006). Someone who can fluently move among gender roles, including uses of gendered language across different contexts, will have a higher gender role flexibility and may be less likely to respond negatively to gender role violations. Research on the relationships among gender roles, gender role flexibility, and credibility are limited, however. This project, therefore, will also perform some exploratory analysis to examine these relationships.

Overall, the current study found that language gender does matter in CMC. Specifically, this research suggests the use of feminine language in email, by a female source, will create higher source credibility and message perception than messages using masculine language. This research also found no evidence that biological gender of the reader influences the relationships among gendered language, source credibility and message persuasiveness. This project is intended as a small first step in exploring the effects of gendered language on credibility and persuasion. Further projects must add to the data and theoretical analysis surrounding this question.

CHAPTER 2. LITERATURE REVIEW

This study examines the relationships among gendered language and perceptions of source credibility and message persuasiveness in computer-mediated settings. Using a theoretical framework that draws on social roles, gender roles, and linguistic theories of gendered communication, it examines the differences in assessments of email messages written in masculine and feminine styles. This section discusses previous research on gender roles and gendered language to identify key considerations in how language can contribute to different perceptions of messages. It then discusses theories of gender role violations such as Expectancy Theory and how such violations and gendered language more generally can affect two key measures of communication effectiveness: credibility and message persuasion.

Social and Psychological Gender Roles

Gender role theory suggests that there are certain gender-related characteristics that society expects men and women to portray, and that they consciously and unconsciously comply or deviate from these roles (Eagly, 1987). Generally, women are expected to be more communal, more supportive, and more relationally oriented, while men are expected to be more aggressive, competitive, and dominant. Gender roles are associated with social norms around the behavior of men and women, and as such are considered to be powerful influences on how individuals relate to others (Eagly, 1987). Gender roles can also be internalized such that men and women believe their inner thoughts, feelings, and preferences should conform to gender proscriptions; indeed, Bem (1993) calls gender “a primary lens” through which we see the world.

Gender roles are enacted in social settings, and expectancies associated with gender roles affect how people behave as a result of social pressures to conform (Eagly et al., 2000). When individuals deviate from gender roles, they frequently experience negative effects on how they are viewed. For example, women's gender roles include being more supportive and nurturing. If a woman behaves in a non-supportive way, she may experience negative responses, or a kind of backlash in the form of social sanctions (Eagly et al., 2000). Some research suggests that this phenomenon is more problematic for women than for men (Eagly & Diekmann, 2005; Gill, 2004). Overall, women seem to have less latitude in violating gender roles. The issues surrounding expectation and gender role violation will be discussed later in this chapter.

Important research on gender roles suggests that social situations and context may motivate some individuals to change their gender roles to suit specific situations or needs. In other words, as his or her audience's expectations or the person's desire to portray a different gender role changes, so do his or her actions and language. These actions and language become the medium to express these roles (Habermas, 1984). Therefore, many scholars recommend studying gender roles from a social context perspective, where these roles can emerge (Eagly, 1987; Martey, 2006; Bem, 1992). The current project explores gender roles by examining gendered language in a specific context--email messages in a business-like setting.

An important development in notions of gender is the concept of psychological gender roles. In 1974, Bem developed a measurement scale to identify not simply how much individuals adhere to roles associated with their gender, but how much they related to both masculine and feminine gender roles. Her approach allowed for the possibility

that individuals enact and embrace both sets of roles. The scale she developed, the Bem Sex Role Inventory, (BSRI, 1974) provides four different psychological gender role classifications: masculine (high rankings on masculine role characteristics and low on feminine characteristics); feminine (high rankings feminine role characteristics and low in masculine characteristics); androgynous (high rankings on both masculine and feminine role characteristics); and undifferentiated (low rankings on both masculine and feminine role characteristics). The importance of the BSRI to the current study is that it allows for an exploration of how this range of gender roles, rather than simply binary gender, might be related to perceptions of gendered language. This approach emphasizes the importance of gender roles as contributing to social and communicative processes, and provides a more nuanced understanding of the relationships among gender, language, and message perceptions.

Gendered Language

Gender roles are expressed, perceived, and manifested in language. Gender theorists and sociolinguists have long identified patterns in the ways men and women speak and associate certain communicative styles with “feminine” behavior and others with “masculine” behavior. Such associations affect the way speakers and their communication are perceived and generally are thought of as consisting of gendered language styles. These styles are closely related to social gender roles more generally and are considered a crucial component of role manifestation and communication.

To understand how gendered language effects message perceptions, a deeper understanding of what gendered language is and its research history is helpful. Gendered language was not recognized as a distinct concept until four decades ago (Dow & Wood,

2006, p. ix) as “male forms [were] inevitably taken as ‘the’ language and female forms [were] regarded as a deviant afterthought” (Thorne & Henley, 1975, p. 9). Since that time, many studies have been exploratory and have offered conflicting findings on the extent to which men’s and women’s language differs. Such differences have been found to be due to a variety of factors including mode (or medium) of communication (Lee, 2007), topic (Palomares, 2004), and the gender of the communication partner (Mulac, Wieman, Widenmann & Gibson, 1988).

Gendered language is a broad concept, encompassing many linguistic features and varying along multiple dimensions. Therefore, creating a concrete definition of “feminine” or “masculine” language is difficult. Many scholars define gendered language as expressing group-norm differences in language features and by explaining the possible underlying mechanisms for these variations, such as biological differences, historical repression and cultural traditions (Thomas & Murachver, 2001; Dennis, Kinney, & Hung, 1999; Palomares, 2004; Bilous & Krauss, 1988). The latter two approaches account for contextual as well as cultural differences and serve as helpful starting points from which to examine gender differences in language use.

Although gendered language has been studied for the last 40 years, discrepancies in the findings within studies of gendered language research have led some to questions about whether there are consistently identifiable gender differences in language, especially across cultures. Some researchers have found broad gender-based communicative differences such as increased politeness among women (Key, 1975; Lim & Larose, 2003; Winter, Neal, & Waner, 2001; Thomas, 2006), whereas others revealed more similarities than differences between genders (Carli, 1990; McLachlan, 1991).

Many of these discrepancies are due to the gendered language variable being labeled as “sex and language” or “sexed language,” making it a “biological designation” (Bell & Blaeuer, 2006, p. 9). However, recent researchers have found that merely using the term “sex” to describe gender has many shortcomings. Therefore, “a key development was differentiating between sex and gender, the former referring to biological characteristics and the latter to culturally constructed meanings, expectations, constraints and prerogatives” (Dow & Wood, 2006, p. xii). Bem (1974) termed the latter *psychological gender*. One of the many reasons why this is such an important description is that people act out their gender differently depending on individual characteristics such as age, sexual preference, and cultural background. Therefore, gendered language is best understood as an aspect of psychological gender and gender roles, not merely on biological gender.

Thomson and Murachver (2001) explain that one reason for the lack of concrete definitions of gendered language is that “gendered linguistic behavior seems to vary in much the same way as other gendered behaviors” (p. 194). Instead of using a specific definition, researchers have listed the common language features used by men and women in most situations (as seen in figure 2.1; Dennis, Kinney & Hung, 1999; Dallinger & Hample, 1994). For example, Thomas and Murachver (2001) provide a list of linguistic features and traits combined from previous research, while Palomares (2004) defines gendered language as the tendency of men to use more directives and women to use more references to emotion. The current project builds on this approach in order to establish a set of parameters that can be identified as “masculine” or “feminine” language, based on the work of Thomson and Murachver (2001). Key to this approach is

the notion that masculine and feminine language features are such because not only are they more frequently used by men or women respectively, but because they are *believed* to be used more by men or women. Therefore, although actual use of features such as the feminine features of showing emotion or relationship building may vary significantly across contexts and individuals, these features are more strongly associated with women and are perceived as a kind of “feminine” language. Similarly, although men and women may both use the masculine features of more direct, aggressive, or status-oriented language, such features are associated with men more strongly than with women. As such, they relate to social gender roles as a manifestation of those roles, and are similarly considered social, variable, and context-dependent.

Although there are many similarities between male and female speech patterns, “differences in the frequencies of these features have then been used to show that female speech is different from male speech...and a number of features have emerged as characteristic of one gender or the other” (Thomson et al., 2001, p. 171). Therefore, even though people are not limited to speaking with one set of gendered language exclusively, overall, general characteristics are used more frequently by each gender collectively (see figure 2.1). Thomson and Murachver (2001) argue that just because women and men do not have completely separate linguistic styles it does not mean that there are not still major differences in overall gender-preferential features in each sex’s linguistics. Instead, researchers are beginning to understand that there are a number of influencing factors, such as other social roles (Thompson, 2003; Price & Bouffard, 1974), message topic (Thomson, 2006), communication partner’s gender (Coupland, 1984; Auer & Hinskens, 2005; Thakerar, Giles, & Cheshire, 1982), age (O’Kearney & Dadds, 2004),

setting/situation (Goldsmidt & Weller, 2000) and power or status (Bilous & Krauss, 1988; Hirokawa, 1990). These factors effect how, when and why people make linguistic choices (consciously or subconsciously) that correspond to one gender or another. Pawelczyk (2002) argues that one feature that does remain constant in linguistic choices is, in one way or another, “they are always gendered” (p. 90). To the extent that linguistic choices are always gendered, then, any time one speaks he or she is performing or creating a gendered identity, whether that performance is resisting, adhering to, or combining gender proscriptions in communication.

These performed identities can reflect the want and/or need for men and women to display different ideologies. For example, women have been found to use politeness, tentative language and more emotion than males to display kindness and create social relationships and ties, where men are seen as using more aggressive and direct language to enhance status and position (Dennis et al., 1999; Dallinger & Hample, 1994; Hertzog & Scudder, 1996; Palomares, 2008). These ideologies correspond to traditional gender roles where women are expected to be more emotional, nurturing, and polite, and men are expected to be more aggressive, competitive, and rational (Eagly, 1987).

The following table lists the gendered language features to be used in this study. In line with gender role approaches, these features are those that have been found to be used by men or women more frequently as well as *associated* with men or women more frequently. Central to this approach is the assumption that individuals will, in a sense, stereotype modes of communication, whether or not a man or a woman is using language with those features. In other words, masculine language features, for example, are not assumed to be limited to men, but rather viewed as a masculine mode of communicating.

Table 2.1: Gendered Language Features

Masculine Language Features	Feminine Language Features
<ul style="list-style-type: none">• References to quantity• Non-standard forms• Grammatical errors• Opinions• Justifiers• Directives	<ul style="list-style-type: none">• Emotion• Intensive adverbs• Compliments• Modals• Tag questions• Personal pronouns• Subordinating conjunctions• Oppositions• Ask questions

Hertzog and Scudder (1996) propose that gendered language research generally reflects three different perspectives to explain why men and women have different linguistic styles. The first perspective is that the differences between men and women are genetic factors that cause men to be more dominant, choosing aggressive strategies, while women will chose “strategies based on liking, helplessness, and hinting” (p. 29). The second suggestion is the result of historical social factors of men having a higher social power and status. Third, the situational and interactional elements may play a part in how men and women “tend to select different types of arguments depending on the gender of their listener” (p. 30). This third factor implies that some aspects of gendered language are strongly situational, and suggests that some people change their use of linguistic features to fit into a specific context. For example, a man may show assertiveness (and thereby, masculinity) when around his football buddies, but use more communal and polite (feminine) language features with his mother.

The current project uses a combination of the second and third approaches in accordance with gender role theory, as discussed above. It assumes that women’s language patterns are based in part on historical and cultural pressures that ascribe certain

roles and characteristics to women in a broad sense, but it emphasizes the importance of communicative context on the manifestation and impact of gendered language styles. The messages developed as part of this study were accordingly written to reflect highly stereotyped versions of masculine and feminine language. In part, this was in order to enhance the likelihood that participants would respond to the gendered characteristics of the message language. In addition, highly gendered language was used to heighten the differences between the two types of messages. It is important to note, however, that, along with other forms of social gender performance, most communicators use more blended styles of gendered language (Bem, 1993).

Gendered Language in Face-to-Face versus Mediated Contexts

Although theories of gendered language are largely medium-independent, some language features identified as gendered imply face-to-face (FtF), rather than mediated, communication modes (e.g., use of smiles). The advent of computer-mediated communication (CMC), and especially its predominance in personal and business communication, has led researchers to explore possible ways that gendered language might manifest differently in media such as email or text chat than it does in FtF communication.

Face-to-face gendered language.

In face-to-face communication, speakers use an array of verbal features (see figure 2.1); however, non-verbal cues are also used, especially to display characteristics such as politeness, emotion and aggression. For example, touching and proximity (Andersen, 1985; Burgoon, 1991), body orientation (LaFrance, 1985), facial expressions (Burgoon, Buller, H, deTurck, 1984), and gestures all provide crucial information in FtF

communication that affect perceptions of politeness (or impoliteness) or emotions (Trees & Manusov, 1998). Research has found that women in particular tend to rely heavily on bodily cues such as smiles, gestures, and posture (Dennis et al., 1999). For example, Dennis et al. (1999) found that women communicate with nonverbal cues more clearly than men, and are more expressive using them. They also found that women are better at reading such cues. These findings suggest that women's communicative style integrates both verbal and non-verbal cues in their FtF communication in important ways.

Such differences in language use are associated with gendered differences in the motivations for communication that also align with social gender roles. For example, motivations of expressing emotion, compassion, and relationship building elements are associated with women, and expressing aggression and status building are associated with men. The specific linguistic and non-verbal features in FtF communication are thought to arise from these differing motivations for communication and make up Yates' (2002) idea of "'doing gender' in a specific context at a specific time" (p. 23). Thus social roles and psychological gender are central factors in how gender is communicated through language and in the associations individuals develop with various types of language and a specific gender.

In general, the use of non-verbal cues in FtF communication can aid communication partners in expressing and understanding feelings, emotion and ideas. However, as Trees and Manusov (1998) note, verbal and non-verbal features "cooperate in complex ways to present an organized, integrated message" (p. 565). The use of verbal and non-verbal features are used congruously and are both considered vital to effective communication. Recently, however, scholars have begun to explore how such patterns

may or may not manifest in CMC, where individuals cannot display body language, facial expressions, or other physical cues directly.

Gendered language in computer-mediated communication.

The features and tendencies of men and women's language have been well-documented in face-to-face communication. However, research is just beginning to explore their equivalents in online contexts such as Internet chat rooms, bulletin boards, email, and instant messaging. Especially because non-verbal bodily cues are generally not available in CMC and because women have been found to rely heavily on non-verbal cues in FtF communication, it is important to explore if and how such gender differences in language occur online. The lack of non-verbal cues could pose a communication barrier in CMC for women in particular. Although some had hoped that this lack of cues would allow the Internet to become an equalizing force for women (Benbasat & Lim, 1993; Connolly, Jessup, & Valacich, 1990; Kiesler & Sproull, 1992), researchers have found that gender preferential language is also evident in CMC, and that communicators read and interpret gender of speakers even absent of other cues (Herring et al., 1996; Thomas & Murachaver, 2001; Dennis et al., 1999; Dallinger & Hample, 1999; Palomares, 2004).

Men and women tend to use similar linguistic features in CMC to those they use in FtF to convey the same motives such as politeness, emotion, social relationships, and enhanced status (Goldsmidt & Weller, 2000). In addition, the visual and verbal cues used in maintaining politeness, showing emotion, or expressing assertiveness have not been eliminated in CMC contexts, but instead, transformed to some extent into text-based cues (Waldvogel, 2007; Waseleski, 2006). Overall, such cues are central to how men and

women communicate, and identifying the specific ways in which FtF patterns may translate to CMC can help scholars understand if and how language is gendered in text-based communication online. The next section examines specific dimensions of gendered language and compares research on FtF contexts with CMC contexts.

Gendered Language Transformations: From FtF to CMC

As noted, a social roles approach to gendered language emphasizes the importance of communicative motivations. Scholars have identified a broad range of motivations, including politeness, building relationships, expressing emotion, expressing status, and displaying aggression. In order to understand ways in which communicative styles may be transformed in CMC contexts, this section discusses three basic categories of motivations and linguistic style: 1) politeness and relational language; 2) expressing emotion; and 3) expressing assertiveness.

Politeness and Relational Language

In Face-to-Face.

Research has shown that women are more polite in communication and more focused on building and engaging others in relationships (Dennis et al., 1999; Dallinger & Hample, 1994; Hertzog & Scudder, 1996). Linguistic features that are found to be stereotypical to females to display politeness and relationship building include the following: compliments (e.g. you are too kind), plural personal pronouns (e.g. *we* should go to the store), tag questions (e.g. I'll be glad when I turn in this paper, *won't you?*), questions and subordinating conjunctions (e.g. I wonder *whether* I will ever get this finished) and hedges (e.g. I'm feeling *slightly* sick today). Compliments and plural pronouns can be seen as displaying politeness via rapport-building. Tag questions and

asking questions become a mix of politeness and relationship building as they allow the communication partner(s) an opportunity to express opinions and create rapport.

Pawelczyk (2002) suggests that “hedges may carry the social meaning of tentativeness, mitigation and the social significance of ‘female’” (p. 91). In other words, hedges make a potential fact into an opinion (which is the reverse of the masculine language feature).

Oppositions (e.g. I’d like to go to Quiznos to eat, but I wouldn’t mind going somewhere else either) are also seen as politeness and relationship building as they give the communication partner a chance to give opinions on the matter as well.

Non-verbal cues in FtF interaction that signify politeness can range from facial expressions (smiles) to body language (leaning in towards communication partner).

These cues combined with linguistic features reinforce politeness and can be an important aspect of conveying politeness.

In computer-mediated communication.

Although many of the features expressing politeness transfer easily into CMC text-based conversations, some differences arise, even in verbal expressions. For example, Trees and Manuzov (1998) found that women use hedges less often in CMC than they do in FtF. They suggest that hedges may be cut due to the amount of time that writing takes compared to speaking. Similarly, questions and subordinating conjunctions may appear less often for similar reasons.

Most significantly, communicators do not have the visual cues to express politeness that they have in FtF such as smiles or posture. Therefore, other textual forms have been incorporated (especially by women) to express politeness and to engage in relationship building. One of these is the use of greetings and closings. Since email and

IM have been found to be considered less formal than written letters or some FtF communication contexts (Mallon & Openheim, 2001), greetings and closings can be seen as a formal and standard way to begin proper and polite communication. Waldvogel (2007) found that in email and text chat, women use greetings and closings more often than men, and that status and social distance were two significant mediating factors for their use. In other words, women of a lower status or greater social distance from their communication partner were more apt to use both greetings and closings, which may indeed be due to the 'need' for politeness in such contexts.

Another common textual form in CMC that is used to signify friendliness and politeness is the use of exclamation marks. In her study of the use of exclamation points in online discussion groups, Waseleski (2006) found that 73% of exclamation use was by women. Waseleski found that women tend to use exclamation points to display friendliness (e.g. I really like your name!) and to give facts (e.g. I'm done grading papers for the semester).

Expressing Emotion

In face-to-face.

Expressing emotion in FtF contexts is highly dependent on body cues such as facial expressions and body language. Similar to politeness, highly emotionally expressive communicative styles are more strongly associated with women. Palomares (2004) found that women tend to display more emotion in conversation than their male counter-parts in FtF communication. Linguistically they do so through intensive adverbs (e.g. I'm *extremely* upset) and emotion words (e.g. I *feel* sad). Like politeness, emotion is also frequently signaled through non-verbal cues such as smiles, frowns, hand gestures,

and body posture, and also usually includes a heightened voice intonation. For example, expressions of unhappiness usually include drawing the eyebrows together and leaning away from the communication partner.

In computer-mediated communication.

Much like politeness cues, many linguistic features that display emotion in FtF communication can be expressed in text-based CMC. However, since much of emotion expression relies on the use of non-verbal cues, text-based features are frequently added by speakers to display and clarify emotion. Emphasizers such as exclamation points are also used in CMC to display emotion, although Waseleski (2006) found exclamation points to be used less to display emotion than friendliness or politeness. However, women only used exclamation points to display emotion slightly more than their male counterparts.

Other forms of communication may also be used to display emotion, such as graphic animation or emoticons (e.g. 😊, ; P), and emotion words or abbreviations such as “lol” (laughing out loud). Witmer and Katzman (2006) found that the use of graphic accents or emoticons have the “potential to add expressiveness, emotion and aesthetics to written discourse...and are possible gender markers in CMC” (p.2). Therefore, it is not surprising that they found that women use emoticons and other graphic animations more often than males.

Expressing Assertiveness

In face-to-face.

Males’ most prominent communicative motivation is assertiveness, or showing superiority (Burgoon et al., 1991). One linguistic feature used to show assertiveness and

superiority that is commonly associated with males is their use of non-standard forms. Such forms include slang terms, abbreviations, and non-standard grammar (e.g. I *ain't* going to go). Coates (2007) notes that, “findings all over the world show that male speakers are more likely than females to use non-standard variants” (Coates, 2007, p. 64). Use of such forms, including curses and taboo words, expresses assertiveness in part because of the departure from more formal modes as well as an association with expressing self-confidence (Lakoff, 1975). Trudgill (1983) suggests that non-standard forms are more common among men for two reasons. First, women tend to be more status-conscious than men, and therefore more sensitive to linguistic norms – an idea known as *hyper-correction*. Second, non-standard forms are associated with working-class speech, which “has connotations of or associations with masculinity, which may lead men to be more favorably disposed to non-standard linguistic forms than women.” (p. 87).

Generally, researchers view use of non-standard forms as expressing enhanced status. Key (1975) explains that one possible reason why women tend to use grammatically correct forms is that, “when lower status is associated with a certain form – ‘ain’t’ for example – women are less likely to use that form because they are low enough already” (p. 133). Males are able to use non-standard forms to separate themselves from women. In addition, use of standard forms may be an expression of politeness for women, while non-standard forms express the opposite (e.g., dominance) for men.

In computer-mediated communication.

Because typing out text takes longer than oral communication, many non-standard forms arise in CMC as time-saving abbreviations among both men and women. Even though some linguistic features that express assertiveness can be directly transferred FtF to CMC (e.g. I ain't going), other non-standard forms have emerged that seem more closely related to time-saving abbreviations. Such forms indicate a kind of inside knowledge and serve as a specialized vocabulary that indicates membership and status within the associated group, especially within online communities such as hackers, gamers, or programmers (Carooso, 2004). These groups have long been dominated by and almost exclusively associated with men (Scott et al., 2001). However, some CMC abbreviations are common among both men and women.

The use of acronyms such as CYA (see ya), L8r (later) and ROFL (rolling on floor laughing) have become common in IM's, emails, and discussion boards among both men and women. Other non-standard forms include shortened or creative spellings of words, for example, "u" for "you" or "2" for "to" (Mallon & Oppenheim, 2001). Because many of these forms are much easier to type than the whole word, these forms have become common in both masculine and feminine communication in CMC; however, other uses of non-standard forms such as l33tspeak (elite speak, or "leet speak") are not used for their simplicity and tend to be used by men more than women in online communication.

L33t speak "incorporates symbols and numbers as substitutes for the letters contained in words" (MacDonald, 2005, p. 80) and was originally created in the 1980's by hackers to "avoid the prying eyes of keyword searches" (Carooso, 2004, p. 76). The

use of this style is complex and difficult, especially because it requires regular substitutions in standard spellings. However, some forms of l33t speak appear regularly in chat rooms and online games. Even though its ‘practical’ use by hard-core hackers may have different implications, its use in chat boards and online games has emerged largely as a masculine communication style. In part this is due to the overwhelmingly male associations with hackers and gamers as cultures. This is exemplified by MacDonald’s (2005) suggestion that “in leet speak the rules of grammar are often ‘out the window.’” (p. 81).

However, some females do use l33t speak in chat rooms and in massively multiplayer online games (MMOGs), and it is these females who abide and enforce “certain ‘rules’, [and] boundaries, [that] were imposed (although unwittingly) by the group to determine correct usage and to monitor ‘trolling’ (abuse)” (Blashki & Nichol, 2005, p. 84). Therefore, although l33t speak does not conform to the standard rules of grammar, a new set of rules has developed in certain groups where females will not only adhere to, but will address other’s misuses so that they adhere to the rules as well. In other words, women were found to enforce l33t speak group norms as actual grammatical rules (Blashki & Nichol, 2005). Adhering to grammar rules in this way, even the “alternate” rules of l33t speak, aligns with women’s tendency to be more conscientious of grammar, as discussed above. Such findings suggest that while l33t speak may be associated with men, there are certain feminine linguistic styles that women incorporate into their use of these terms.

Implications of Examining Gendered Language in CMC

Many factors support examining computer-mediated communication for gendered language styles as they relate to persuasion. First, CMC is the simplest way of capturing linguistic styles of communication because text-based conversation can be easily recorded for study. Second, many forms of CMC, especially email, have become an important, if not the primary, medium of communication in businesses today. Also, this trend is not seen as likely to diminish, but rather will likely continue to flourish as new technologies and greater familiarity with technology allow for greater ease in using CMC. Third, studies have shown that gender language differences in CMC occur in similar ways as other forms of communication as discussed above. In fact, Thomson and Murachaver (2001) suspect “that people simply take the gender-preferential styles used in other forms” (p. 196). Lee (2007) found that, in fact, “men and women exhibit different stylistic features and communication patterns in CMC” (p. 516). Therefore, this supports the use of this medium to examine such stylistic features.

Studies have shown that differences between male and female linguistic styles in CMC are limited and have even found some contradictory findings. Even with these small differences in individual features, “it is possible to classify accurately email messages by author’s gender using a combination of those features” (Thomson & Murachaver, 2001, p. 200). Small linguistic changes can give enough cues to determine the author’s gender; therefore, the message receiver can apply stereotypical judgments to the sender and create biases against females in online participation (Dennis et al., 2007). This may have positive and negative effects. For instance, message receivers can use stereotypes based on gender to better understand the message and to create a successful

message back to the sender. However, the message may cause negative stereotypes or social identities usually associated with a particular gender to arise for the recipient which may cause them to misinterpret the message, the sender's identity, and offend the sender. These findings suggest that examining gendered language differences in email messages can be an effective way to explore the impact of such language in communication.

This section argued that communication styles are gendered, and that many features of gendered language use can translate from face-to-face to computer-mediated communication. The social role approach to understanding the differences that emerge between men's and women's communicative styles suggests that not only do women tend to use different forms of language and self-expression online than do men, but that different forms are associated with one gender over the other. Thus communication in an online context can provide cues to participants about a speaker's gender, even when that gender is unknown. Similarly, such associations create the potential for violating gendered associations--when women use traditionally masculine forms, or vice versa, gendered social roles are violated, sometimes eliciting confusion or backlash. The next section examines the notion of such violations more closely.

Expectancy Theory and Gender Role Conflict

Expectancy Theory provides a framework within which to explore how gendered language elicits different perceptions of communication for different people. It postulates that people develop expectations about the behavior of others and that "violations of these behaviors will stimulate changes in arousal thus affecting our communicative interactions with others" (Koerner & Petelle, 1991, p. 342). In other words, Expectancy

Theory specifically looks at what message receivers expect from the sender based on perceptions (usually based on stereotypes) of the sender. Burgoon, et al. (1991) explains that:

The logic underlying expectancy theory, which is a language based theory of persuasion, assumes that language is a rule-governed system and that people develop expectations and preferences concerning the language or message strategies employed by others in persuasive attempts. These expectations are primarily a function of (a) cultural norms and (b) sociological norms. (pp. 181-82).

Although the current study does not approach gendered language strictly as a “rule based system” as suggested by Expectancy Theory, this framework provides a powerful way to explore the consequences of violating communicative expectations based on gender.

Language is an especially salient feature of Expectancy Theory when examined in the context of CMC, and especially email messages, because other cues are reduced. In particular, this is because of its focus on specific linguistic features rather than more dynamic components of communicative exchanges. Palomares (2004) states that, “a message recipient infers different beliefs and evaluations when forming impressions about communicators due to the linguistic features that communicators use. A message sender’s language also affects the responses (e.g., behaviors and communicative strategies) that a message recipient has toward the sender during interaction” (p. 561).

Therefore, when the receiver expects the message sender to use one gender-preferential style of language, but the sender does not use that style, a violation of expectation occurs. If this violation is perceived by the recipient as “better” than expected, a positive violation will occur, whereas if it is perceived as worse or too different than expected, a negative violation will occur. It is important to note that the consequences of such violations depend on both the valence of the violation (better or

worse than expected), as well as the extent of the violation (how far from expectations the violation is perceived). Campo, Cameron, Brossard & Frazer (2004) found support for this hypothesis and explained that “positive and negative violations lead to different ends (behaviors): If a positive outcome occurs, then receivers should move in the direction advocated by the source/the message” (p. 453). Therefore, if a negative outcome occurs, one can assume that no behavioral change or that a negative behavioral change will pursue, but that a positive violation will enhance the persuasiveness of the message. In other words, expectation violations can be an important component of message persuasiveness, as will be discussed in the next section.

The valence of expectation violations is particularly important for women communicators because generally women have been found to be seen as less credible communicators. Campo et al. (2004) suggest that “less credible communicators have a restricted bandwidth, and the use of aggressive message strategies is non-normative – clearly and negative violation of expectations” (p. 185). This suggests women can adopt masculine speech styles too much, creating a negative violation and resulting in a less persuasive message. In addition, these effects seem more powerful for women than men. For example, Burgoon, Dillard and Doran (1983) found that women are more strongly penalized for deviations from expected gender-related behavior, and that people have clear differences in expected communication strategy use by males and females. Importantly, they found that neither biological nor psychological gender altered these expectations. These findings suggest that behavioral expectations as explained by Expectancy Theory can have a powerful impact on the perceptions of communicative

behavior. Violations of expectations can be broad and strongly associated with gender overall.

Important research on expectancy violation in CMC demonstrates that women experience these negative consequences more frequently than men. Burgoon, Birk and Hall (1991) examined gender of physician, verbal aggression and patient compliance by creating eight written messages in letter form that varied by gender and verbal aggression – a characteristic strongly associated with masculine communicative style. Two identical messages were created for each of the four message groups - low, moderate, high and extreme verbal aggression - and one in each group was signed with a masculine or a feminine name. The authors found that male physicians were given higher compliance scores when using both more aggressive and less aggressive compliance language than women, suggesting that women have a much narrower bandwidth for varying from expected linguistic styles. Overall, women were given lower compliance scores for more aggressive messages. In their research, Burgoon et al. did not find the sex of the respondent to have a significant interaction with compliance scores. That is, men and women tended to have similar responses to expectation violations.

Such phenomena have also been explained in research on gender role conflict and role congruity literature (Eagly & Diekmann, 2005). Generally, gender role conflict arises when an individual either behaves or feels pressured to behave in ways counter to his or her gender role. For example, research on gender roles and managers suggests that qualities associated with good managers are largely masculine gender roles. Gill (2004) found that women who enact more masculine gender roles are perceived as poorer managers than those enacting feminine roles, in spite of the fact that they were

performing behaviors associated with necessary managerial skills. Generally, research on role congruity suggests that individuals that violate a role are perceived negatively for disregarding the expectations set to them (Eagly & Diekmann, 2005; Eagly & Karau, 2002).

Especially relevant to the current project is research that suggests that women receive more negative evaluations when violating gender roles than men do. Social psychological research in work-related situations has demonstrated a backlash effect against women who display more assertive behaviors. For example, Rudman and Glick (2001) found that women are penalized for a perceived lack of social skills when they self-promote to demonstrate their competency. Similarly, research on social influence has shown that women are less likeable and, as a result, less persuasive when they use more stereotypically male leadership styles, including more task-oriented or self-interested communicative and influence styles as opposed to a more communal, social or group-oriented influence style (Carli, LaFleur, & Loeber, 1995; Ridgeway, 1982, 2001). Meta-analyses of gender and leadership evaluations show that women regularly experience negative outcomes when using a stereotypically masculine, directive or authoritative leadership style (Eagly, Makhijani, & Klonsky, 1992). Overall, such findings suggest that women who violate gender proscriptions in communication and behavior are seen as less competent, less likable, and less effective.

Some research suggests that women are also more likely to violate gender expectations than men. Although studies such as that from Burgoon et al. (1991) have found little evidence that men and women respond differently to expectancy violations, some related research suggests that women are generally more open to gender role

departure than men, especially in recent decades. For example, Tweng (1997) performed a meta-analysis of 63 studies that used the BSRI to assess levels of masculinity and femininity in men and women. She concluded that changes in average scores over time, “demonstrate women’s increased endorsement of masculine-stereotyped traits and men’s continued nonendorsement of feminine-stereotyped traits” (p. 305). Similarly, Bosson, Taylor and Prewitt- Freilino (2006) found that although both men and women were uncomfortable with imagining their own gender role violations, men were far more so than women. LaMar and Kite (1998) argue that, “women are ...less likely to perceive pressure to reject gender-role nonconformists” (p. 451). This demonstrates that females are starting to become more comfortable with using masculine traits, whereas, males are not as comfortable with using feminine traits. Researchers (Gilroy, Talierco, & Steinbacher, 1981; Hansson, Chernovetz, & Johnes, 1977) show support that this increase is due to a cultural change of more women entering the workforce. Therefore, although they may still assume their feminine gender role in the home, they are becoming more comfortable with using masculine gender role traits while they are in the workforce.

These findings suggest that women are more permissive of gender violations in others than men are. Research on attitudes towards homosexuality, for example, support this conclusion, where heterosexual women are generally found to be more accepting of both lesbians and gay men than are heterosexual men (LaMar & Kite, 1998; Kite & Whitley, 1996). In other words, women are more accepting of sexuality violations than men. It is important to note, however, that considerable research finds that women experience greater negative effects from gender role violation than do men, from *both* men and women, as noted above. Overall, then, it is unclear from the literature whether

or not women and men would respond to violations of gendered language differently than one another.

As suggested by Expectancy Theory, violating gender expectations in communication can lead to a range of negative outcomes. Gender role conflict and role congruity theories suggest that these effects are heightened for women. This study focuses on how such effects might influence perceptions of women's computer-mediated communication, specifically email. The literature discussed here suggests that messages from women that use more masculine communicative styles and language will be less persuasive, less credible, and less effective overall. The next section examines the specific aspects of two important outcomes of communication that will be the focus of the current research: credibility and persuasion.

Message and Source Characteristics

In order to assess the consequences of different perceptions of masculine and feminine language styles in CMC, this project examines two important components of message effectiveness: source credibility and message persuasiveness. Broadly, source credibility is the believability of a communicator. Research on source credibility focuses on the ways in which message content, form, and context affect receivers' perceptions of the author's credibility. Even anonymous messages (or a message from someone who does not already have a personal relationship with the reader) can evoke perceptions of credibility, generally associated with language style, message context, or other details. Message persuasiveness identifies the extent to which audiences are convinced by message content, including how likely they are to follow its recommendations, change their opinions or attitudes, and believe ideas or facts it presents. Research on message

persuasion focuses on how much a message change beliefs or attitudes of the audience (Fishbein & Azjen, 1975)

Source Credibility

Most of the recent source credibility research has emerged from McCroskey and Young's (1981) research even though thoughts about source credibility go all the way back to Aristotle and his idea of *ethos*. McCroskey and Young (1981) defined source perceptions as "the attitude toward a source of communication held at a given time by a communicator" (McCroskey & Young, 1981, p. 24). Source credibility perceptions are related to the believability of a source and are made up of two primary components: expertise (or competence) and trustworthiness (Hovland & Weiss, 1951). Some scholars note that goodwill is also an important dimension of credibility (McCroskey & Teven, 1999). Expertise is simply the quality of having skills or knowledge in a relevant area. Semlack and Pearson (2008) define competence as being perceived to be able to demonstrate knowledge of the subject matter and to be intelligent and qualified. They describe trustworthiness as someone who is perceived as sincere, selfless and fostering respectable qualities. McCroskey and Teven (1999) define goodwill as "perceived caring" and suggest three elements that may shape how one is perceived as more caring: understanding, empathy and responsiveness. In other words, understanding another person's ideas, feelings and needs, having empathy or identifying with one's feelings, and acknowledging another person's needs shape a positive goodwill.

Even though each of these dimensions has been studied thoroughly under these names, they have also been studied under similar or the same concepts with different names. For instance, elements of competence have also been examined as qualification,

expertness, intelligence and authoritativeness; trustworthiness values have been studied under notions such as character, sagacity, safety and honesty; goodwill has been looked at as caring (Martin, Chesebro & Motett, 1997).

Credibility has been identified as important in how individuals respond to specific messages and has been studied across a range of contexts, including political advertisements (Garraffo, 1985), business communication (Brock & Saine, 1975; Kenton, 1989), and promotional materials (Gotlieb, Schlacter & St. Louis, 1992; Bennet, 1997). Generally, research on source credibility focuses on non-personal communication, such as news articles or political speeches, although some research has examined personal messages (Lord, 1994).

Studies of credibility have found that higher source credibility is associated with a range of positive outcomes of specific messages. For example, credibility has been found to increase perceptions of advertising product quality (Gotlieb & Sarel, 1992), to increase the likelihood of behavior change (Bright et al., 2007; Jones, Sinclair & Courneya, 2003), and affect overall message persuasiveness (Pornpitakpan, 2004). Studies of credibility in computer-mediated contexts has demonstrated that credibility can be influenced by both visual and textual factors, including design look, site structure, and usefulness of information (Warnik, 2004). For the purposes of this study, therefore, visual factors and context were held constant in order to focus on the relationships between gendered language and source credibility specifically. In the current project, examining credibility contributes to understanding how differently gendered language of email messages might cause the message to be perceived in different ways.

Message Persuasion

Although some researchers argue that all language is persuasion (Miller, 1980), Virtanen and Halmari (2005) define persuasion as “all linguistic behavior that attempts to either *change* the thinking or behavior of an audience, or to *strengthen* its beliefs, should the audience already agree” (p. 3, emphasis theirs). Therefore, any language that induces attitude, belief or behavior change can be defined as persuasive language (Sears & Jacko, 2003). For a message to induce attitude, belief or behavior changes, three factors should be evoked by the message: ethos, pathos and logos (Virtanen & Halmari, 2005). Cairns’ (1899) early research termed these as “intellect, emotion and will.” Although the terms are different, the concepts are generally the same, suggesting that a message evoking all three will be more persuasive than a message evoking one or none at all.

Ethos, pathos and logos are not evoked consistently across situational and socio-cultural contexts, however (Virtanen & Halmari, 2005). Cairns (1899) argues that logos, or will, can only be reached through intellect and emotion. Messages that counter a person’s logos is usually not persuasive unless the intellect and/or emotion evoked is so strong that will is overcome. However, messages that do not go against a person’s ethos may still not be persuasive without incorporating emotion and intellect. Pathos, or emotion, brings an emotional slant to the message in attempts to persuade. For example, shortly after the Columbine High shooting, President Clinton related the story to gun control in America. Since the Columbine shooting most likely elicited emotion from most Americans, they may have been more willing to vote for gun control on the next ballot (Tuman, 2003). Ethos, or intellect, appeals often use a statistics or a credible source to create message persuasion.

Persuasive messages, then, draw on intellect, emotion, and will to affect change in message recipients. A long tradition of studying persuasion across a range of contexts has demonstrated that persuasion is a complex and often temporary process. Most research examining persuasion explores the extent to which messages evoke either attitude or behavioral change (Fishbein & Ajzen, 1975). Effectively persuasive messages are thought to be those that evoke such change in consistent and predictable ways (Fishbein & Ajzen, 1975). The current study is concerned with message persuasiveness in order to examine how differently gendered messages might evoke stronger or weaker changes in audiences. Especially in the specific context of this study – an email marketing message – persuasion is an important component of effective communication.

Relationships between Persuasion and Credibility

Ideas linking source credibility to persuasion go as far back as Aristotle. Aristotle believed that *ethos*, or intellect, is “the source’s most potent means of persuasion” (McCroskey & Teven, 1999, p. 90). Therefore, the persuasive effect of source perceptions has been studied for many years. Source credibility is seen as having an impact on the persuasiveness of messages because, “messages are interpreted and evaluated through the filter of the receiver’s perceptions of the message’s source” (p. 90). Teven and McCroskey (1997) believe that a message cannot be received independently from its source. In other words, source perceptions (even when the source is anonymous) will affect other thoughts and attitudes that a recipient will have toward the message. This follows the usual assumption that “the more favorable a person’s attitude toward some object, the more he will intend to perform positive behaviors (and the less he will intend to perform negative behaviors) with respect to that object” (Fishbein & Ajzen, 1975, p.

288). Therefore, if a message creates positive source perceptions, such as competence, it will be likely be more persuasive and evoke a favorable attitude toward the message content.

Importantly, the effects of a message's source credibility on persuasiveness have been found to be related to individuals' initial opinions about the message topic. For example, Sternthal, Dholakia and Leavitt (1978) found that credibility could facilitate, inhibit, or have no effect on the persuasiveness of messages, depending upon whether participants favored, disagreed, or were neutral towards the message content. Similarly, Bock and Saine (1975) found that sources of low credibility were more persuasive than those of high credibility when participants initially favored the position stated in the message. Accordingly, the current project will use messages that are as neutral as possible to minimize the chance that the topics will evoke differing opinions among participants.

Credibility, Persuasion and Gendered Language

Linguistic choices can affect how a communicator is viewed. In line with the research on gendered language, the current project explores the relationships among linguistic styles, gender, and credibility. Martin et al. (1997) found that positive source perceptions include two important components: assertiveness and responsiveness. Generally, assertive language styles are considered more masculine and responsiveness more feminine. Speakers who adhere to one gender's language or the other, then, might be viewed less positively because a message that has only one feature will be seen as less persuasive, and a message with both will be more persuasive.

Weeless and Potorti (1989) were among early researchers to study the effect of gender on source perceptions. In a study of classroom persuasion, they found that the hypothesized three-way interaction of teacher sex, student sex, and feminine and masculine characteristics was not significant. Instead they found that attitudes toward positive classroom behavior were related to the psychological gender orientation of the teacher, regardless if the teacher was male or female. In other words, levels of masculinity and femininity, rather than binary gender, were influential factors. Other research has found that race, but not gender, was significantly correlated with credibility in a classroom setting. Although these settings are arguably distinct from studies of mediated messages, they suggest the importance of psychological (behavioral) rather than physical gender in perceptions of sources. Semlak and Pearson (2008) also found that teacher credibility is linked to verbal aggression and psychological gender orientation. Similarly, Infante (1985) found that women who were coached to be more “argumentative” experienced increases in their credibility in an educational context. Therefore, studying the gender of the language used (e.g., aggressive masculine language) is important to understand how source credibility is perceived.

Research on credibility, persuasion and gender more generally has found conflicting patterns in the relationship between source gender, participant gender, and credibility assessments (Burgoon et al., 1991). Some research has found that topics more related with one gender over the other can change perceptions of credibility: on female-related issues, women were deemed as more credible (Feldman-Summers et al., 2006). In business contexts, however, Kenton (1989) found that men and women who were

assessed as equal in expertise and trustworthiness (i.e., credibility) were nevertheless *not* perceived as equally persuasive: men were consistently rated as more persuasive.

In CMC, the relationships between credibility and gender are less clear. Some have argued that women generally are perceived as of lower status, less persuasive, and less credible (Herring, 2003). However, some research suggests that significant interaction effects are at play. For example, Flanagan and Metzger (2007) examined web pages created by males and females and found that men rated messages and sites significantly higher than women did overall, and that there was a significant interaction effect whereby opposite-sex credibility evaluations were higher than same-sex evaluations. In contrast, Nowak explored the sex-attribution and credibility assessments of participant dyads using anonymous text-only communication. She found that fully 1/3 of participants reported assigning no sex category to their partners, and that this group rated partners as having higher credibility than those who did assign a sex, regardless of the sex they assigned. On the other hand, other research Nowak and colleagues conducted on gender and avatars found that masculine avatars were moderately associated with increased perceptions of competence and credibility overall (Nowak, Hamilton, & Hammond, 2009).

Summary and Hypotheses

This study explores the relationships between gendered language and perceptions of computer-mediated communication. Literature on gender roles suggests that certain associations between gender and behavior, including communication behavior, affect the ways men and women perceive themselves and others. Studies of gendered language demonstrate that those gendered behaviors manifest in specific styles of communication,

where women are generally more polite, use more formal language, use more emotionally expressive language, and use more hedges and questions. Such tendencies, although not always performed by individual women, are generally *associated* with women, and are therefore considered “feminine” language styles. These styles seem to translate to some degree from face-to-face into computer-mediated contexts.

Such differently gendered communication styles can influence the credibility of messages, although the literature on how and when is somewhat contradictory. Importantly, Expectancy Theory and theories of gender role conflict suggest that central to perceptions of messages are not simply gender, but the extent to which gendered styles violate or contradict expectations of behavior. That is, when women use masculine styles of communication, some evidence suggests that they receive far more negative outcomes than when they adhere to traditional gender roles. Furthermore, some gender role literature suggests that women tend to adapt their gender roles more frequently than men and that they may be more comfortable than men are with gender role violations. Little research identifies the extent to which these tendencies translate into more open attitudes toward *others* who violate gender roles in relation to message characteristics, however. This project, therefore, presents the following hypotheses:

H1: Messages written by female authors with masculine language will be associated with **lower credibility** than those written in feminine language.

H2: Women participants will assess messages written by female authors with masculine language as **more credible** than men will.

Credibility in general is associated with the persuasiveness of messages.

Therefore the following hypotheses are also proposed:

H3: Messages written by female authors with masculine language will be associated with **lower persuasiveness** than those written in feminine language.

H4: Women participants will assess messages written by female authors with masculine language as **more persuasive** than men will.

Additional factors can affect the relationships between source credibility, gender, and messages, especially in computer-mediated contexts. The visual cues of messages, such as format and design components, as well as the extent to which topics are associated with one gender over another can affect how messages are perceived. Therefore, this study examines messages that are as neutral as possible in a familiar and visually limited context: email messages in a standard interface. This design allows the current research to focus on the impact of differently gendered messages in specific rather than incorporate format effects. Future research should seek to explore the impact of such additional factors, however.

The current research explores the relationship between participant gender, language gender of a message, and perceptions of a message. However, gender role theory and other research suggest that psychological gender role, rather than simply binary gender, may have important effects on message perceptions. In addition, some literature suggests that individuals' propensity to *shift* gender roles across contexts may also be important to perceptions of gender role violations in particular. Literature on these factors is limited, however. The present study, therefore, also examines two research questions with exploratory analysis:

RQ1: Will participant's psychological gender orientation affect assessments of source credibility?

RQ2: Will the participant's psychological gender orientation affect assessments of message persuasion?

RQ3: Will participant's Gender Role Flexibility affect assessments of source credibility?

RQ4: Will participant's Gender Role Flexibility affect assessments of message persuasion?

It is expected that male and female participants with more androgynous psychological gender roles will assess messages that violate gendered language expectations (i.e., written in masculine language) more favorably. Similarly, it is expected that those with higher Gender Role Flexibility will assess violations more favorably.

CHAPTER 3. METHODS

In order to explore the relationships between gendered language and perceptions of computer-mediated email messages, this study used a 2 (masculine and feminine message) by 2 (male and female participants) experiment, posttest-only design (Table 3.1). A total of 252 participants were randomly assigned two email messages written in either masculine or feminine language, and then completed an online survey that assessed their perceptions of source credibility, message persuasiveness, psychological gender role, gender role flexibility, and demographic variables.

Table 3.1: Study Design: Treatment Groups

Masculine message language / Male participant	Masculine message language / Female participant
Feminine message language / Male participant	Feminine message language / Female participant

Much research on the influence of gendered language has been conducted using content analyses of either transcripts of face-to-face communication (Putman, 1984) or of written communication (Thomson, Murachver, & Green, 2001; Thomson & Murachver, 2001; Palomares, 2004; Bilous & Krauss, 1988). Since these studies were interested in how and when men and women change their speech patterns, content analyses allowed them to analyze the number of times and in which situations changes took place. Researchers such as Bem (1974) and Burgoon (1974) have used surveys to determine how certain gendered traits and language styles are perceived more generally.

Other researchers have used experimental designs (see Lee, 2005; Lee, 2007; Winter, Neil, & Waner, 2001). Because experimental designs allow researchers to identify moderating and mediating variables, this approach is common in gendered language research, as gendered language is affected by many moderating and mediating variables such as social roles (Thompson, 2003; Price & Bouffard, 1974), message topic (Thomson, 2006), communication partner's gender (Coupland, 1984; Auer & Hinsken, 2005; Thakerar, Giles, & Cheshire, 1982), age (O'Kearney & Dadds, 2004), setting/situation (Goldsmith & Weller, 2000) and power or status (Bilous & Krauss, 1988; Hirokawa, 1990). Similarly, influential source credibility (McCrosky & Young, 1981; Martin, Chesebro & Mottet, 1997; McCrosky & Teven, 1999) and persuasion studies (Booth-Butterfield et al., 1994; Burgoon, 1983; Burgoon et al., 1991; Hirokawa, 1990) have used experimental approaches.

This study utilized a quasi-replication of a 1991 study by Burgoon et al. that used a post-test only experimental design with manipulated messages as stimulus. In that study, the researchers developed four distinct messages that varied in levels of aggression and attributed them to either male or female authors. Their design resulted in successful analyses of the relationships between message linguistic style and assessments of author characteristics. The present study uses a similar approach by creating manipulated messages and focuses on perceptions of source credibility and message persuasiveness. In order to effectively examine how language differences are read in email communication, the current study presented the stimuli text in screenshot images of email messages. Representing the actual appearance and format of email, rather than simply placing the text in the survey, increased the ecological validity of the design.

Stimulus

Participants were randomly assigned two messages, for each of two topics. The gender of the message was randomized so any one participant could receive male/male, male/female, or female/female combinations of message. Two different message topics were used to control for message effects, finance and time management. Topics were selected to be as gender-neutral as possible in order to assure that language, not topic, was varied across message types. Four rounds of message testing helped determine the most effective language and topics used for this study.

For each topic, messages contained the same information with a call to action to attend a meeting, but varied in language style. Each message was altered to reflect either masculine or feminine writing style, such as the use of exclamation points, questions, and emoticons for the feminine condition and more assertive and direct language for the masculine condition. For example, the time management message written in feminine language was:

Managing your time is so very important for your success. Do you find that the day flies by without enough time to accomplish what you need to do? Does it always feel like something new comes up and you can't get everything organized? Do you need a better balance in your life? If so, we can help! By attending one of our time management seminars, you can learn terrific and easy tips to improve how you use your precious time.

In this seminar we can teach you personal time management skills and help you recognize your more troublesome areas. We feel that small class sizes are the key to your success because we can provide the tips and strategies that will help YOU the best!

The amount of time you spend learning these tips will make everything you do easier and more organized. Now doesn't that sound like a fair trade? We would love to help you understand how to implement these simple time management tips. We hope that you can join us! For more information or to register, please call 1-800-GO-4-TIME.

Thank you!!

Emily Cunningham

In contrast, the time management message written in masculine language was the

following:

Good time management is one of the most important skills of successful people in the US. 58% of workers report they don't have enough time to do all their work. Seventy-three percent report that ineffective organization and unforeseen tasks are the main causes. Time management skills are the best way to improve your productivity. Attend one of our training sessions. You will learn powerful tools to improve your time management skills.

Two-hour seminars by our experts will train you in the most efficient use of your efforts and eliminate weaknesses. Personalized instruction is tailored to your needs.

Investing in our rigorous training sessions can increase your productivity by up to 48%, making your work more effective and successful. Improve your time management by learning these powerful tools.

Call NOW to increase your time management skills today.

1-800-GO-4-TIME

Emily Cunningham

Message Pre-Testing

This study used a set of four messages written in masculine or feminine styles of language according to the literature. Pre-tests were run on message stimuli in order to ensure that message gender could be correctly determined.

Four pre-tests were conducted before each message reached an acceptable reliability for correctly identified gender. The female signature at the bottom of the text was removed to ensure that the stimuli were creating a gendered perception due to language alone. Each message was pre-tested with 30 people from the population used for the full study, the GROW Nebraska Facebook, Twitter and list serve databases. No persons who took the pre-test were allowed to participate in the actual study.

The questions in each pretest asked participants about the gender of the message, how sure they were of that response, the persuasiveness of the message and asked for additional comments. After each pre-test percentage of correct gender identification was calculated and the comments provided were considered.

Originally, the two topics were finance and stress relief. However, after the first three pre-tests, participants still did not correctly identify masculine language as such in the stress relief message. Therefore, the stress relief topic was changed in the fourth pre-test to time management. Acceptable reliability was found for both the masculine and feminine time management pre-tests in the fourth round of testing.

Each message and the reliability score for gendered language identification are listed in Table 3.2.

Table 3.2: Message Gender Correct Identification

Message	Correctly Identified Gender
Female Time Management	.94
Female Finance	.71
Male Time Management	.77
Male Finance	.75

The pre-tests provided beneficial information on how people assess gender through different linguistic characteristics. However, given that gendered language is contextual and rests on a continuum rather than being binary and given time and resource restraints, this study accepted the messages that were over .70 in correct gender identification. However, it should be noted that the lower gender identification rate may effect the outcome of this study.

Although three of the four messages are correctly identified at a slightly lower correlation than I would have preferred for this study, the female time management

message had an extremely high correlation of .94. The difference in the correct identification scores for these messages may be due to a number of factors. Masculine language has been seen as the norm of standard way of “doing language” and feminine language has been seen as a deviation of this standard language; therefore, recognizing these deviations as feminine may make identification of feminine language easier. The difference in scores between the two female messages may be more difficult to explain. Although both messages contain questions, exclamation points and intensive adverbs, the type of adverbs used may have had an effect on how participants chose gender. The finance message contained more adverbs such as “simple tips” and “friendly advisors” than the time management message.

Once pretest measures satisfied message gender identification, the female closing was added to the messages and the messages were added to the SurveyGizmo main survey.

Stimuli Post-Test Reliability

A manipulation check question in the actual survey was also used to assure that the stimuli used in the study represented gender through language by asking participants the following question: “Think about the message you read about TIME (the first message). Although this message is signed by a female, do you believe that the language sounded more masculine or feminine?” Results show that messages overall were correctly identified 67% of the time. Table 3.5 shows correct gender identification for each message.

Table 3.3: Correct Message Gender Identification

Message	Correctly Identified Gender
Female Time Management	.85
Female Finance	.62
Male Time Management	.44
Male Finance	.70

Since participants were not asked specifically to pay attention to the language used, were asked a series of questions regarding the message's source and persuasiveness and were not allowed to go back and view the messages when answering the question about the message's gender, the percent of correctly identified gender messages should be lower than the pre-test results. Even then, three of the four messages have a fairly high percent of correct identification; however, the time management message written in masculine language was more often identified as being a female writer. One caveat that needs to be considered when looking at correctly identifying gender due to language is that in cases where other gendered cues are reduced, linguistic gendered cues are not always processed consciously but may be processed subconsciously. Even so, due to the low number of correctly identified time management messages written in masculine language, caution should be taken in over generalizing the results presented in the subsequent sections and future research should attempt to increase the percent of correctly identified messages.

Measurement of Variables

Participants took the survey by clicking on a link that was either sent to their email address from the GROW Nebraska list serve or from the link that was posted on the GROW Nebraska Facebook and Twitter pages. The risk of repeat surveys was limited by Survey Gizmo's ISP tracking, and participants were not be able to change their answers

once they had closed the survey. However, participants were able to go back and change their answers or save and return to the survey until it was submitted.

An online survey allowed participants to complete the questionnaire from any location and at any time within the week as until the survey was closed. Once participants finished the survey, a printable debriefing statement explained the study and any manipulation, posted a request to not discuss this study with anyone until the study completion end date, and provided contact information regarding any questions about the study (see Appendix E).

Source Credibility

Source credibility was measured using McCroskey and Teven's (1999) scale. This is an 18-item scale that asked participants to select a point from 1 to 7 on semantic differentials. Perceptions of source credibility measurements are made up of a combination of perceptions of source competence, trustworthiness, and likeability. Examples of bipolar adjectives measuring competence included "intelligent/unintelligent" and "untrained/trained;" adjectives measuring likeability are "cares about me/doesn't care about me" and "has my interests at heart/doesn't have my interests at heart;" adjectives measuring trustworthiness included "honest/dishonest" and "untrustworthy/trustworthy." For this study, the source credibility scale's Chronbach's Alpha was at .96, a very high reliability.

Message Persuasiveness

This study measured message persuasiveness using a five-item scale created by Christophel (1990), the State Motivation Scale, which measures behavioral motivation and intent. Since the overall goal of messages with a call to action is to get the reader to

act on the message and since conducting a study that would actually require participants to attend an event would increase moderating variables and difficulty of the study, measuring behavioral intent is the next best method. Through this scale, participants provide their intent and motivation for attending the hypothetical meetings. Participants rated a pair of words on a 7-point semantic differential with adjectives such as “motivated/unmotivated,” “excite/bored” and “interested/uninterested.” This scale was also used in Martin, Chesebro, and Mottet’s (1997) research to measure motivation and behavioral intent. For this study, the State Motivation Scale’s Chronbach’s Alpha was a .95, also a very high reliability.

Psychological Gender Role Orientation.

The Bem Sex Role Inventory (BSRI) as modified by Wheelless and Dierks-Stewart (1981) was used to measure psychological gender roles of participants. This is a 20-item shortened version of Bem’s original 60-item scale (1974), and has been tested for reliability and validity. The Bem Sex Role Inventory has been tested and used in many studies (Wheelless & Dierks-Stewart, 1981; Stephen & Harrison, 1985; Chung, 1995; Lim & Larose, 2003). However, Wheelless and Dierks-Stewart (1981) questioned how well this scale withstood linguistic evolutions and cultural changes. They produced the shorter scale with 10 masculine and 10 feminine items which was employed in this study.

Wheelless and Dierks-Stewart’s scale asks participants to rate themselves on 10 feminine and 10 masculine adjectives using a 7-point Likert scale from “never or almost never true” to “always or almost always true.” Ratings within each individual category (feminine and masculine) are added together and divided by 10 to identify levels of masculinity and femininity for each participant. Those scores are then assessed against

national averages and participants are classified into one of four gender role categories: masculine (high masculine, low feminine); feminine (high feminine, low masculine); androgynous (high on both); or undifferentiated (low on both). Chronbach's Alpha for masculine adjectives for this study was .90 and was .89 for female adjectives.

Gender Role Flexibility

Gender Role Flexibility, the ability of men and women to comfortably move between feminine and masculine gender role characteristics across differing social situations, is measured by the Gender Role Flexibility Scale (GRF; Martey, 2006). Martey's scale asks participants to complete the shortened BSRI (30 items) while considering each of four different social settings: conversations with same-sex friends; conversations with a romantic partner; a mixed-sex workplace; and a mixed-sex party. Results for each context are averaged, and a measure of change across contexts is assessed.

Table 3.4: Reliability Scores for BSRI and GRF

Gender	BSRI	Partner	Friend	Female Superior
Masculine	.90	.90	.90	.92
Feminine	.89	.92	.90	.91

Demographics such as gender and age were also captured in this study. Biological gender was measured as either male, female or unsure. Age was measured by an open-ended question asking participants to type in their birth date.

Table 3.5: Measurements of Variables

Dependent Variables	Independent Variables
Source credibility Message persuasiveness	Primary Variables Message language gender (feminine/masculine) Participant gender (male/female) Participant gender role (masculine, feminine, androgynous, undifferentiated) Participant GRF score Secondary Variables Biological gender Age

Participants and Recruitment

For this study 252 participants were recruited from the GROW Nebraska Facebook Fan base, Twitter followers and the GROW Nebraska email list serve. Participants were compensated by receiving 10% off any online orders from the GROW Nebraska web site for participating in the study. Since participants were recruited through email and/or social media outlets, all participants were assumed to have at least basic Internet experience. Participant ages ranged from 18 to 88 with a mean age of 42. Participants were 78% women and 19% men; 3% answered unknown or did not provide gender.

Since each participant answered, read and completed scales for two messages, one on time management and the other on finance, each participant's answers were separated

into two rows for data analysis. Therefore, each participant had two rows of data with one message's answers portrayed in each row for a total of 504 rows of data. After exploratory tests were run, data from the list of female participants was randomly selected so that there was an equal distribution of male and female participants. A total of 98 male participant lines and 98 female participant lines were used in the analyses reported below. Since this study is interested in gender language effects, this allowed for equal analyses for H2 and H4 that explore the relationships between gendered language, source and message perception and gender of the reader. Since RQ1 and RQ2 address participant's psychological gender, results from the randomly selected group are shown in Table 3.6 below.

Table 3.6: Psychological Gender Statistics

	Masculine	Feminine	Androgynous	Undifferentiated
Psychological Gender	27	72	86	12

Participant age is also used as a control variable in this research. Descriptive data for age for both the full group and the random select group are shown in Table 3.7 below.

Table: 3.7: Age Statistics

	Mean	Standard Deviation	Minimum	Maximum
Age statistics, full dataset	42	15	18	88
Age statistics, data subset	42	15	18	87

Source Credibility and Message Persuasiveness

The results and relationships of the control variables are important to understand before delving into the analyses of the hypotheses themselves. Results for this study found source credibility and message persuasiveness to be significantly correlated at $r(196) = .78, p < .01$. In other words, when source credibility was high, message persuasiveness was also high. Previous research has also found a positive relationship between source credibility and message persuasiveness (Fishbein & Ajzen, 1975; McCroskey & Teven, 1999). Figure 4.1 shows the relationship between these two variables.

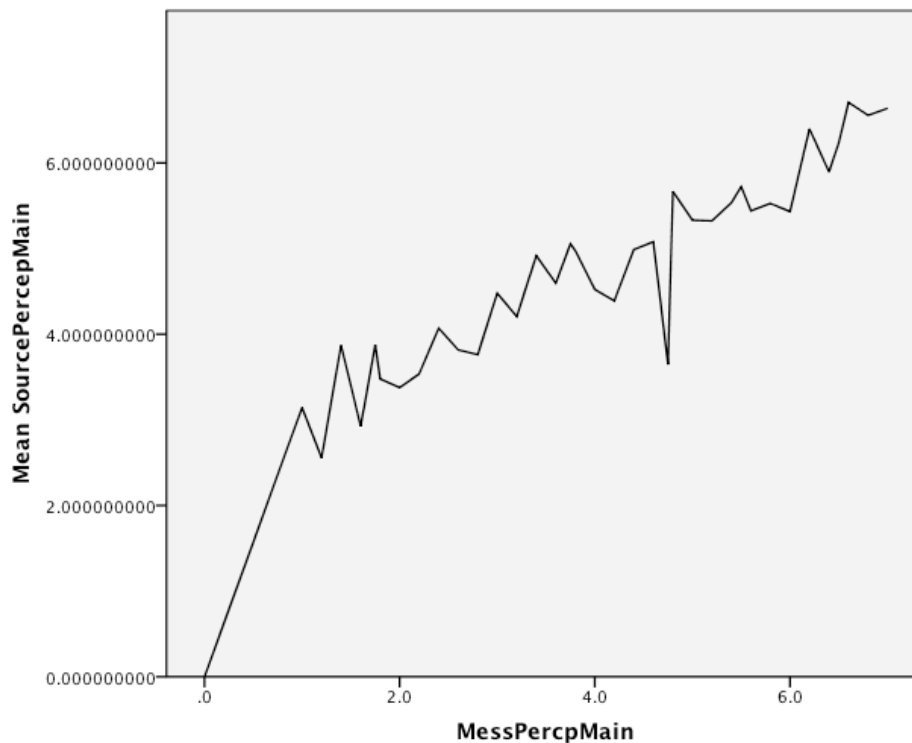


Figure 3.1. Correlation of Source Credibility and Message Persuasiveness.

Control Variables

Control variables were analyzed in this research to account for possible alternatives and explanations when exploring hypotheses. Three variables not directly

addressed in the hypotheses or research questions are age, message topic and message order. As table 4.1 below shows, age is significantly correlated with source credibility and message persuasiveness, where older people are more likely than younger people to rate sources as more credible and messages as more persuasive across all messages regardless of message gender.

Message topic is also related to source credibility and message persuasiveness. This analysis shows that, overall, topic affected perceptions of credibility and persuasiveness. Sources of time management messages were viewed as more credible and more persuasive than messages about finance. This suggests that the relationship between topic and message perceptions could affect the results of this study. Further research is needed to examine how this influence might affect perceptions of language gender. There was no effect of the order in which the topics were presented, however.

Table 3.8: Control Variables

	Source Credibility	Message Persuasiveness
Age	*.305	*.305
<i>Significance</i>	(.000)	(.000)
Message Topic	*-.192	*-.140
<i>Significance</i>	(.007)	(.049)
Message Order	.068	.099
<i>Significance</i>	(.339)	(.164)

Since age and message topic have been found to influence source credibility and message persuasiveness, the results reported in the subsequent section include reports of age and topic for each Hypotheses and research question.

CHAPTER 4. RESULTS

This thesis examined the impact of gendered language on source perception and persuasion in order to explore which writing style creates higher credibility and persuasion when a female is creating an email message. The findings reported here are based on the results of an online survey consisting of 98 randomly selected participants out of the total 252 participants conducted during the summer of 2009. Respondents were assumed to be Internet users based on online recruitment methods, and ranged from 18 to 88 years of age with an average age of 42. Slightly over three-fourths (78%) of the original sample were female, about 19% were male, and 3% marked unsure or did not mark an answer for gender. For analysis, 49 women were randomly select to match the 49 men who answered the survey.

Analysis used in this study includes bivariate and partial correlations to determine the relationships among the variables. It is important to note that the messages used as the stimuli are presented as written by a woman, signed with a female name. Message gender as discussed here corresponds to the *style* of the message language that either corresponds to masculine or feminine gender styles. Thus, all messages were attributed to a female, but half used feminine language and the other half used masculine language. No messages in this research were intended to have a male author.

Message Gender and Source Credibility

In line with expectancy violation theory that suggests that when sources stay within the given violation bandwidth, he or she will be seen as more credible than when there is a violation, H1 predicted that messages written by female authors with masculine

language will be associated with **lower credibility** than those written in feminine language. In order to explore this relationship, correlations and partial correlations were examined. Bivariate correlations suggest that message gender has a significant relationship with source credibility (see Table 4.1): feminine messages were rated as having higher source credibility than masculine messages, thus supporting H1.

Table 4.1 Correlations: Message Gender and Source Credibility

	Source Credibility
Message Gender	*.218
<i>Significance</i>	(.002)

Since message topic and age showed significance with source credibility and message persuasiveness, partial correlations controlled for these variables to further explore the relationship between message gender and source credibility. With very similar coefficients, partial correlations show that age does not interfere with the relationship between message gender and source credibility. However, message topic *does* influence the relationship, by decreasing it and reducing its significance. Therefore, message topic explains some of the correlation between message gender and perceptions, but message gender is still a significant predictor of source credibility.

Table 4.2 Partial Correlations: Message Gender and Source Credibility

Controlled	Source Credibility
Message Gender, No controls	*.218
<i>Significance</i>	(.002)
Message Gender Controlled for Age	*.214
<i>Significance</i>	(.003)
Message Gender Controlled for Topic	*.176
<i>Significance</i>	(.014)
Message Gender Controlled for Age and Topic	*.169
<i>Significance</i>	(.020)

Further partial correlations were run to explore this relationship when message persuasion was controlled. Since source credibility and message persuasion are highly correlated, one could be very strongly related to message gender masking the true relationship of the other.

Table 4.3 Partial Correlations: Message Gender and Source Credibility

Controlled	Source Credibility
Message Gender, No controls	*.218
<i>Significance</i>	(.002)
Message Gender Controlled for Message Persuasiveness	*.149
<i>Significance</i>	(.038)

When controlled for message persuasiveness, the relationship between message gender and source credibility is still significant; however, it is less significant and the coefficient has been slightly reduced than when no controls are used in the analysis.

Message Gender and Message Persuasiveness

Expectancy violation theory suggests that bandwidth violations will result in unpersuasive messages; therefore, H2 predicted that messages written by female authors with masculine language will be associated with **lower persuasiveness** than those written in feminine language. Bivariate correlations showed that message gender is significantly correlated with message persuasiveness in a positive direction; female messages are more persuasive than male messages, suggesting support for H2. However, further analysis questions this finding.

Table 4.4 Correlations: Message Gender and Message Persuasiveness

	Message Persuasiveness
Message Gender	*.162
<i>Significance</i>	(.023)

To further explore this relationship, partial correlations were used to control for age and message topic. The similarities in coefficients reveal that age does not influence the relationship between message gender and message persuasiveness. However, controlling for age decreases the coefficient and reduces the significance below the 0.05 level. This indicates that message gender is not actually a significant predictor of message persuasiveness, thus, not supporting H2. This effect is even more pronounced when controlling for both age and topic simultaneously.

Table 4.5 Partial correlations: Message Gender and Message Persuasiveness

Controlled	Message Persuasiveness
Message Gender, No controls	*.162
<i>Significance</i>	(.023)
Message Gender Controlled for Age	*.150
<i>Significance</i>	(.037)
Message Gender Controlled for Topic	.130
<i>Significance</i>	(.069)
Message Gender Controlled for Age and Topic	*.114
<i>Significance</i>	(.117)

Further examination controlling for source credibility, shows the relationship between message gender and message persuasiveness no longer nears significance and the coefficient sign changes.

Table 4.6 Partial correlations: Message Gender and Message Persuasiveness

Controlled	Message Persuasiveness
Message Gender, No controls <i>Significance</i>	*.162 (.023)
Message Gender Controlled for Message Persuasiveness <i>Significance</i>	-.012 (.863)

These findings suggest that message gender is not related to message persuasion, thus not supporting H2. Overall, this analysis suggests that age, message topic, and source credibility account for associations between message language gender and persuasiveness.

Reader Gender and Source Perception

Hypothesis III predicts that women participants will assess message written with masculine language as more credible than will men. Bivariate correlations show that reader gender is not significantly correlated to source credibility, suggesting that reader gender does not relate to the appeal of feminine language messages versus masculine language messages. Keep in mind that this is for messages that are using different message gender due to language, not due to actual source as all messages were attributed female authors. Thus H3 is not supported. In addition, when messages written with feminine language were analyzed, no significant relationship between reader gender and source credibility was found.

Table 4.7 Correlations: Reader gender and source credibility

	Source Credibility
Reader Gender	.101
<i>Significance</i>	(.159)

Further analyses showed no change in significance when controlling for age and topic, although coefficients did change slightly. There was also no significant change when controlling for message persuasiveness. This indicates no relationship between reader gender and source credibility.

Table 4.8 Partial correlations: Reader gender and Source Credibility

Controlled	Source Credibility
Reader Gender, No controls	.101
<i>Significance</i>	(.159)
Reader Gender Controlled for Age	.067
<i>Significance</i>	(.354)
Reader Gender Controlled for Topic	.100
<i>Significance</i>	(.164)
Reader Gender Controlled for Age and Topic	.068
<i>Significance</i>	(.350)
Reader Gender Controlled for Message Persuasion	.042
<i>Significance</i>	(.559)

Reader Gender and Message Persuasion

H4 predicts that woman participants will assess masculine messages as more persuasive than men will. Bivariate correlations show that reader gender and message perceptions are not significantly related, thus not supporting H4.

Table 4.9 Correlations: Reader Gender and Message Persuasiveness

	Message Persuasiveness
Reader Gender	.087
<i>Significance</i>	(.226)

Further analyses were run to control for age and topic. When controlled for age and topic, message gender shows no significant correlation with message persuasiveness. This relationship is also insignificant when controlling for source credibility.

Table 4.10 Partial correlations: Reader Gender and Message Persuasiveness

Controlled	Message Persuasiveness
Reader Gender, No controls	.087
<i>Significance</i>	(.226)
Reader Gender Controlled for Age	.053
<i>Significance</i>	(.468)
Reader Gender Controlled for Topic	.086
<i>Significance</i>	(.234)
Reader Gender Controlled for Age and Topic	.053
<i>Significance</i>	(.468)
Reader Gender Controlled for Source Credibility	.035
<i>Significance</i>	(.628)

These findings indicate that the relationship between reader gender and message persuasiveness is not significant and does not support H4.

To further explore biological gender of reader relationships, data was split by reader gender. Splitting the data showed no correlation for male readers between message gender and perceptions of message persuasiveness. However, for female readers, the relation between the gender of the message and perceptions of message persuasiveness is significant.

Table 4.11 Correlation: Reader gender and message persuasiveness

Split by Reader Gender	Message Persuasiveness
Male readers	.123
<i>Significance</i>	(.222)
Female readers	*.209
<i>Significance</i>	(.040)

These results, however, are not showing support for H4, which suggests that women judge messages written with masculine language as more persuasive men. Instead, it shows that woman are more likely to view messages written in feminine language as more persuasive than messages written in masculine language. In other words, this analysis suggests that language used within a message matters for women as they prefer feminine language, but language gender does not influence male readers in their perceptions of message persuasiveness.

Table 4.12 Partial correlations: Reader Gender and Message Persuasiveness

Controlled	Message Persuasiveness
Reader Gender, No controls	.087
<i>Significance</i>	(.226)
Reader Gender Controlled for Age	.053
<i>Significance</i>	(.468)
Reader Gender Controlled for Topic	.086
<i>Significance</i>	(.234)
Reader Gender Controlled for Age and Topic	.053
<i>Significance</i>	(.468)
Reader Gender Controlled for Source Credibility	.035
<i>Significance</i>	(.628)

Further analyses were run to control for age and topic. When controlled for age and topic, message gender shows no significant correlation with message persuasiveness

suggesting that age and topic may be moderating variables. This relationship is also insignificant when controlling for source credibility

Psychological Gender Orientation and Source Credibility

In order to explore RQ1, bivariate and partial correlations were run. RQ1 asked, Will the participant's psychological gender orientation affect assessments of source credibility? Results showed no significant correlations for female, androgynous or undifferentiated psychological gender; however, people whose psychological gender is male evaluated female sources overall as having a low source credibility. In other words, across both language styles used, masculine and feminine, participants with male psychological gender viewed the message source as having low credibility.

Table 4.13 Bivariate: Psychological Gender and Source Credibility

	Source Credibility
Male	*-.192
<i>Significance</i>	(.007)
Female	.085
<i>Significance</i>	(.235)
Androgynous	.067
<i>Significance</i>	(.351)
Undifferentiated	-.033
<i>Significance</i>	(.643)

When controlling for message gender, participants with male psychological gender viewed sources as having low credibility. This shows that language gender did not have an effect on source credibility for psychologically male participants, but all messages utilized in the study were rated as having a lower source perception.

Table 4.14 Bivariate: Psychological Gender and Source Credibility

	Source Credibility
Masculine Gender Role	*-.192
<i>Significance</i>	(.007)
Masculine Gender Role Controlled for Message Gender	*-.190
<i>Significance</i>	(.008)

Partial correlations were then run on all four psychological gender types; however, only male psychological gender results are shown below as no significant correlations were found in further analyses of the other gender types. The similarities in coefficients reveal that neither age nor topic is influencing the relationship between male psychological gender and source credibility. When controlling for message persuasiveness the relationship between male psychological gender and source credibility is even more pronounced as the coefficients and significance levels show in Table 4.15 below. Therefore, this is showing that people whose psychological gender is male are more likely to perceive sources as having low credibility.

Table 4.15 Partial: Masculine Gender Role and Source Credibility

Controlled	Source Credibility
Masculine Gender Role, No controls	*-.192
<i>Significance</i>	(.007)
Masculine Gender Role Controlled for Age	-.185
<i>Significance</i>	(.100)
Masculine Gender Role Controlled for Topic	*-.198
<i>Significance</i>	(.005)
Masculine Gender Role Controlled for Age, Topic	*-.192
<i>Significance</i>	(.008)
Masculine Gender Role Controlled for Message Persuasiveness	*-.245
<i>Significance</i>	(.001)
Masculine Gender Role Controlled for Biological Gender	*-.177
<i>Significance</i>	(.014)

Psychological Gender Orientation and Message Persuasiveness

In order to analyze RQ2 -- Will the participant's psychological gender orientation affect assessments of message persuasion -- bivariate and partial correlations were run. Analyses show no correlation between any of the psychological gender orientations and message persuasion. Further partial correlations examining the influence of age and topic did not show statistical significance.

To further explore a potential relationship between psychological gender and message persuasion, partial correlations were run for each of the four gender types. No significant changes occurred during partials for feminine, androgynous or undifferentiated.

Table 4.16 Psychological Gender Orientation and Message Persuasion

	Message Persuasion
Male	-.050
<i>Significance</i>	(.489)
Female	.036
<i>Significance</i>	(.615)
Androgynous	.012
<i>Significance</i>	(.871)
Undifferentiated	-.025
<i>Significance</i>	(.723)

Further examining male psychological gender, partials showed no significance when controlling for age and topic; however, the relationship was significant when controlling for source credibility.

Table 4.17 Partial: Male Psychological Gender and Message Persuasion

Controlled	Message Persuasiveness
Masculine Gender Role, No controls	-.050
<i>Significance</i>	(.489)
Masculine Gender Role Controlled for Age	-.033
<i>Significance</i>	(.654)
Masculine Gender Role Controlled for Topic	.051
<i>Significance</i>	(.475)
Masculine Gender Role Controlled for Age and Topic	-.035
<i>Significance</i>	(.665)
Masculine Gender Role Controlled for Source Credibility	*.162
<i>Significance</i>	(.024)
Masculine Gender Role Controlled for Biological Gender	-.030
<i>Significance</i>	(.680)

This is suggesting that even though psychological males are more likely to rate sources as having low credibility no matter the language style, they are still likely to be persuaded by the message.

Gender Role Flexibility and Source Credibility

Bivariate and partial correlations were used to examine RQ3-- Will participant's Gender Role Flexibility affect assessments of source credibility? Results showed no correlation between GRF and source credibility perceptions.

Table 4.18 Bivariate: Gender Role Flexibility and Source Credibility

	Source Credibility
Gender Role Flexibility	-.075
<i>Significance</i>	(.294)

Further analyses did not show significant correlation between GRF and source credibility when assessing for age and topic effects. Although the results are not

statistically significant, the negative coefficients suggest that participants with lower gender fluency may tend to view sources as having high source credibility.

Table 4.19 Partial: Gender Fluency and Source Credibility

	Source Credibility
Gender Fluency	-.075
<i>Significance</i>	(.294)
Gender Fluency Controlled for Age	-.089
<i>Significance</i>	(.218)
Gender Fluency Controlled for Topic	-.086
<i>Significance</i>	(.230)
Gender Fluency Controlled for Age and Topic	-.101
<i>Significance</i>	(.166)
Gender Fluency Controlled for Message Persuasion	-.074
<i>Significance</i>	(.303)

Gender Fluency and Message Persuasion

Bivariate correlations were used to examine RQ4 -- Will participant's Gender Role Flexibility affect assessments of message persuasion? Results showed no correlation between GRF and source credibility perceptions.

Table 4.20 Gender Role Fluency and Message Persuasion

	Message Persuasion
Gender Role Fluency	-.037
<i>Significance</i>	(.609)

Partial correlations were then run to further explore the relationship and also revealed no significant correlation between gender fluency and message persuasiveness.

Table 4.21 Partial: Gender Role

	Message Persuasion
Gender Fluency	-.037
<i>Significance</i>	(.609)
Gender Fluency Controlled for Age	-.042
<i>Significance</i>	(.567)
Gender Fluency Controlled for Topic	-.044
<i>Significance</i>	(.540)
Gender Fluency Controlled for Age and Topic	-.049
<i>Significance</i>	(.501)
Gender Fluency Controlled for Fluency and Message Persuasion	.034
<i>Significance</i>	(.632)

Summary

Thus, the results from this study show support for H1 and H2, stating that masculine language will be associated with lower perceptions of source credibility and message persuasiveness. Results did not find support for H3 and H4, showing no relationship between reader gender and perceptions of source or message persuasiveness. Results also suggest a relationship between psychological males and lower source credibility overall; however, this study did not find evidence of a relationship between psychological gender proscriptions and message persuasiveness. GRF also does not appear to have a relationship with either source credibility or message persuasiveness.

CHAPTER 5. DISCUSSION

The objective of this study was to investigate whether the gendered language style used in email communication affected the perceptions of source credibility and message persuasion. The results of this research suggest that in CMC women who violate gender role norms by using a masculine language style, are more likely to be perceived as having low credibility and suggests that messages will not be as persuasive as when using a feminine language style.

Research on gendered social roles has found that men and women are expected to portray certain gender-related characteristics such as using more aggressive and informational (male) or more polite and inviting (female) language style. When these roles are not followed, a role violation occurs (Eagly, 2000; Koerner & Petelle, 1991; Burgoon et al., 1991; Camp et al., 2004). Such violations are often assessed negatively by social others, and are consequently related to lower source credibility and message persuasiveness than behavior with gender-congruent communication styles. Research has found that gender-role violations have more negative consequences for women and that they have a narrower range of gendered characteristics in which to perform their gender roles than do men; therefore, women are more likely to experience a negative backlash for creating a violation (Burgoon et al., 1991; Burgoon et al., 2006).

Consistent with these studies, the present research found some support of the hypothesized impact of gendered language on perceptions of source credibility and message persuasiveness in email messages. Significance and effect size varied by gendered language of the message, psychological gender, age, and topic; however,

gender of the reader and Gender Role Fluency did not have a significant effect on message assessments. Overall, the results of this research suggest that when a violation of expected gender roles occurs, sources are viewed as less credible and messages are not as persuasive.

Findings

Gendered Language in Source and Message Perceptions

This study found support for H1: The use of masculine language by a female source was significantly and positively related to lower source credibility. When controlled for message topic and message persuasion, the correlation between gendered language and source credibility was reduced suggesting that these variables intervene in the relationship between gendered language and credibility. However, although message topic and message persuasiveness did intervene as mediating variables in the relationship between gendered language and source credibility their affect was minimal and masculine language style was still significantly related to perceptions of lower credibility of the female source. According to Violation Expectancy Theory, this suggests that when messages from a female source contain masculine language, a negative violation occurs resulting in lower perceptions of source credibility. The findings presented here parallel previous literature on gender roles and Violation Expectancy Theory (Eagly & Diekmann, 2005; Gill, 2004) suggesting that women who use masculine language in CMC are more likely to be perceived as having less credibility than when they use feminine language styles that stay within the bandwidth of the expected gender role.

Previous research (Fishbein & Ajzen, 1975; McCroskey & Teven, 1999) suggests a strong relationship between source credibility and message persuasiveness. This study

supports previous findings and found significance at a large coefficient for the relationship between source credibility and message persuasiveness. This suggests that when a source is viewed as highly credible, the message is likely to be seen as highly persuasive.

H2 predicted that the use of masculine language by a female author would be associated with lower persuasiveness compared to messages containing a feminine language style. Preliminary analyses found a significant and positive relationship between the use of feminine language style and message persuasiveness. This suggests language style used does affect message perceptions and that feminine messages are perceived as more persuasive than masculine messages. However, further analysis exploring this relationship controlled for source credibility. When controlling for source credibility, there is no longer a significant relationship between gendered language and message persuasiveness. This suggests that high source credibility results in high message persuasiveness; however, it also suggests that gendered language does not directly affect message persuasion. As such, this suggests that source perception is a mediating variable in the relationship between gendered language and message perceptions and that gendered language style *does not* have a direct relationship with how persuasive a message is. In other words, neither messages containing masculine nor feminine language was found to be more persuasive than the other. Therefore, H2 may only be considered as supported with consideration for this mediating variable.

Further analyses explored the relationship between message gender and message persuasiveness by examining the influence of control variables. Participant age and message topic were found to influence this relationship. Results controlling for age and

topic showed no significant relationship between message gender and message persuasiveness. In other words, age and message topic intervened in the relationship between message gender and message persuasiveness suggesting that they are moderating variables in the relationship. Although only speculative, one possible explanation of age and topic's influence may be the salience of the topic to participants. According to Petty and Cacioppo's (1986) Elaboration Likelihood Model (ELM) one explanation for a message bias could be that participants were more intrigued or called into higher elaboration of one message or another due to the salience of the topic. In other words, older participants may find time management and stress relief as more salient topics than younger participants. Similarly, participants may have found stress relief to be more salient than time management. Further research on the relationship between age and topic and message persuasiveness is needed to expound further on topic effects.

Reader Gender in Source and Message Perceptions

This study did not find support for H3, that predicted that females would rate masculine messages as more credible than men would. This finding is prefaced by research on reader gender that has shown mixed results. Research exploring how gender roles have shifted over time show that women are beginning to portray more masculine characteristics; however, men have not begun using more feminine traits (Twenge, 1997). Other research has shown that women are more comfortable imagining their own and others' gender violations than men (Bosson, Taylor, & Prewitt-Freilino, 2006; Lamar & Kite, 1998). This suggests that females would be less likely to experience a violation when gender roles are crossed as they are more comfortable with incongruent gender roles. In contrast, Flanagan and Metzger (2007) found in their study that men rated web

sites and their messages as more credible than women did. The current study does not follow previous research showing reader gender as a significant predictor (Larmer & Kite, 1998); however, it does correspond with research findings that have shown that biological gender has no significant effect on source credibility perceptions (Weeless & Potorti, 1989; Burgoon et al. 1983). Together, this suggests that there is no relationship between reader gender and perceptions of source credibility.

This study did not find support for H4: woman participants will assess masculine messages as more persuasive than men will. It also did not support research by Flanagan and Metzger (2007) which found that men perceived web site messages as more persuasive than women did, as no difference in perceptions of message persuasion were found in relation to biological gender, thus supporting Burgoon et al.'s (1991) research. Further research should continue to examine the relationship between participant's biological gender and message persuasiveness.

Psychological Gender Orientation in Source and Message Perceptions.

This study also explored several research questions. First, RQ1 asked: Will participants' psychological gender orientation effect assessments of source credibility? Psychological gender is based on behavioral characteristics determined as either masculine or feminine such as aggressiveness, leadership ability and competitive (masculine) and friendly, sensitive and tender (feminine). The BSRI characterizes individuals in one of four categories: masculine (high in male characteristic and low in female characteristics), feminine (high in female characteristics and low in male characteristics), androgynous (high in both male and female characteristics) or undifferentiated (low in both male and female characteristics). Although the BSRI has

become a prevalent way of measuring gender, less research has looked at the relationship between source credibility and psychological gender than source credibility and biological gender. Research that has begun to explore this relationship shows contradicting findings. Burgoon et al. (1983) found that a participant's psychological gender was not related to expectations of or assessments for deviations from gender role behavior. However, Wheelless and Potorti (1989) had participants rate the speaker on each of the characteristics of the BSRI and found that the speaker's perceived psychological gender was related to credibility but not the participant's psychological gender. Semlak and Pearson (2008) also found that credibility is linked to psychological gender and specifically to the use of aggressive (masculine) language.

The current research found that participants who were classified as psychologically masculine (14% of participants) rated sources for *both* masculine and feminine language styles as having low credibility. However, none of the other three psychological genders (feminine, androgynous and undifferentiated) were significantly associated with perceptions of source credibility or message persuasion. This suggests that for psychologically masculine readers, gendered language does not matter in creating perceptions of source. Instead, it is possible that other variables may be moderating or mediating this relationship. For example, readers with masculine characteristics may form credibility perceptions based solely on the gender cue given by the source same (i.e. Emily implies female source) and not base perceptions on the language used or on whether that language coincides or breeches traditional gender roles. Another explanation could be that masculine readers may view all sources (male or female) as having low source credibility; however, this possibility cannot be supported by the results of this

research as no messages were attributed to a male source. However, it is important to note that these results are based on only 27 psychologically masculine participants and that due to the small N , random error could create a bias in these results. A small N for psychologically undifferentiated participants may also account for no significant findings between undifferentiated participants (7 participants) and source credibility. Therefore, further research needs to explore this relationship between low source credibility and psychological gender.

This relationship does not appear to be influenced by topic or by reader biological gender. Since analyses on reader biological gender did not show a significant relationship with source credibility nor does it influence the relationship between masculine gender and source credibility, this suggests not only that psychological gender may be a more appropriate measure of gender characteristics, but also that it has a stronger relationship with perceptions of source credibility than does biological gender. In other words, being male biologically is not related to a tendency toward having either high or low perceptions of source credibility, but those who are high in masculine characteristics and low in feminine characteristics are more likely to perceive all female sources as having lower credibility than those classified as feminine, androgynous, or undifferentiated. Although message topic did not appear to influence the relationship between psychological gender and perceptions of source credibility, it is possible that those classified as masculine did not find either message salient. Therefore, there could be an interaction between the characteristics of psychological masculinity that makes neither time management or money management salient.

The relationship between psychologically masculine gender and source credibility perception is influenced when controlling for age. When age is controlled, the relationship between psychological gender is no longer significant at the $p < .05$ level, although it is still approaching significance at $p < .10$. This suggests that age influences the relationship between masculine gender and source credibility, but even when age is taken into account there is still a relationship between psychological gender and source credibility. Again message salience may be a factor as older participants classified as masculine may be more interested in the topics used for this study. Another explanation that is congruent across both psychological and biological gender is that older participants were more likely to rate sources for both masculine and feminine messages as more credible than younger participants.

Second, this study asked: Will participants' psychological gender orientation effect assessments of message persuasiveness? Preliminary analyses showed no significant relationships between any of the four psychological gender groups and message persuasiveness. However, a positive coefficient suggested that masculine psychological participants viewed all messages as having low persuasiveness although this relationship was not found at a significant level. Further analyses controlling for source credibility substantially changed the relationship between masculine gender classification and message persuasion – the relationship became highly significant and the relationship direction changed. In other words, when controlling for source credibility, psychologically masculine gender is significantly and inversely related to message persuasiveness. This suggests that even though masculine participants view the source as having low credibility, they still view the message as being highly persuasive

although this group still views messages as less persuasive overall than participants in other psychological gender groups.

These results appear to contradict other results found in this study. Hypothesis testing showed that when source credibility was high, message persuasion was also likely to be high. However, results indicated that those classified as masculine in psychological gender were likely to perceive sources overall as having low credibility, but messages overall as being highly persuasive. This suggests that for masculine readers, messages can still be highly persuasive even when the source is not seen as being credible. One explanation for this phenomenon may be that masculine readers evaluate the message at face value and base perceptions of the message's persuasiveness on whether he or she believes the meeting (either time management or stress relief for this study) would be beneficial to attend. In other words, the potential gain from attending the meeting outweighs the perceptions of the credibility of the message source. Explanations for these relationships may also be inferred when closely examining the BSRI adjectives associated with being high on masculine characteristics and low on feminine characteristics. This group associates less with feminine adjectives in the BSRI that show support and desire for relationship building such as "friendly," "eager to soothe hurt feelings," "sensitive to needs of others" and "understanding." Therefore, this group is less likely to worry about others or how they "feel" about one another. On the other hand, this group more strongly associates with masculine adjectives that support aggression and leadership such as, "acts as leader," "strong," "competitive" and "aggression." Therefore, the characteristics used to classify participants as masculine could also indicate what is most important to this group regarding the messages; therefore they may be more likely

to take the information from the message and determine if it will aid them in fulfilling any of these adjectives for their personal gender roles. In other words, they may not be as motivated to care about the source, but would be motivated by the message if it would give them a competitive edge.

Results for this section, however, also need to be evaluated critically as they are based on only 27 participants who were classified as psychologically masculine; therefore, caution is needed when generalizing from such a small number. Future research with a larger sample size should continue to examine the relationships among psychological gender, source credibility and message persuasiveness.

Gender Role Fluency in Source and Message Perceptions

The results from this study did not find support for RQ3 or RQ4, meaning that results did not show support indicating that readers who have high GRF are less likely to perceive a gender violation. Gender role flexibility has become a widely researched topic, examining relationships between gender roles and coping abilities (Cheng, 2005), adolescent development of flexibility (Bartini, 2006), transitions between work and family roles (Winkel & Clayton, 2010) and self-concept structures (Margolin & Niedenthal, 2000); however, no previous research on gender role flexibility has examined its relationship to source credibility perceptions and message persuasion. Although logically the more comfortable a person is in adopting different gender roles in different situations, the more he or she should be comfortable with others utilizing different gender roles, the results shown here do not support this assumption. Instead these results suggest that even though a reader is comfortable with enacting different gender roles in certain situations, they are not necessarily comfortable with other people deviating from the

gender role. This could be partially explained because the reader is able to justify their own gender role deviations based on personal situations and their perceptions of his or her communication partners in these situations; however, it is possible that one does not always afford others the same justifications when forming perceptions. Therefore, further research examining how one perceives his or her own gender role and gender role deviations and others' gender roles and deviations begin to explain the results found in this analysis.

Although this research did not find any support for a relationship among gender role flexibility, source credibility and message persuasiveness, it is important to note that this study did not use the full GRF presented by Martey (2006). Instead, it used a shortened version due to survey time and length limitations in the data collection process. Further research should examine this relationship using the full scale and other measures of gender flexibility used in previous research (e.g., Fulcher, Sutfin & Patterson, 2007; Bartini, 2006).

Control Variables: Age and Topic in Source and Message Perceptions

Although this study did not pose hypotheses or research questions about the relationships among age, source credibility, and message persuasiveness, a post hoc analysis showed that age is a significant predictor of source credibility and message persuasiveness. Previous research on the relationship between source credibility and age has varied. Eastin (2001) found that the reader's age was negatively correlated with perceived credibility of online newspapers. Similar studies have also found that the older the participant is, the less likely they are to view the source as credible (Finberg, Stone & Lynch, 2002; Johnson & Kaye, 1998). Other studies have found no correlation to age and

source credibility (Yoon, Kim & Kim, 1998; Smith, Young, Gibson, 1967). However, Freeman & Spyridakis's (2004) study examining the credibility of online health information found a positive relationship between age and perceived author expertise (credibility); therefore, showing that the older participants had higher ratings on the article and the authors expertise than younger participants.

The wide range of results found in these studies as well as the present research suggests that there are other variables intervening in this relationship. It may be speculated that message type (i.e. web page, email, newspaper, face-to-face, etc.) and salience of message topic could operate as such intervening variables. For example, even though the Eastin (2001) study showed that older participants viewed the sources as less credible than younger participants, this could be due to numerous factors such as familiarity with print newspapers, different online writing style (due to less time and editing before publication), possibly viewing all newspaper media sources (print or online) as less credible, etc. It may also be that the messages in this study were found to be more salient to older participants than to younger participants such as the topic of study found in Freeman & Spyridakis's (2004) study examining online health information. The topics (time management and stress relief) in this study may also be more salient for older participants. The inconsistencies in the relationship between age and source credibility across studies suggests that further research should continue to examine this phenomenon.

The results of this study also suggest that message topic is related to source credibility and message persuasion. Although efforts were taken to choose gender-neutral messages for this study so as to look only at the effects of the gendered language used,

results suggest that the topics may have been somewhat gendered and influenced message assessments as manipulation checks showed that the gendered linguistic style was not always correctly identified. For instance, male time management messages within the actual study (not the message pre-tests) were more often identified as using feminine language with only a 44% rate of correct identification as masculine. One explanation for this is that time management is seen as a feminine topic and thus attributed to a female even when asked to specifically identify language characteristics. Therefore, topic may affect how source credibility is viewed.

Alternatively, it is possible that all topics are gendered to some extent, and thus a design testing the gendered nature of the topic as well as the language was needed. This would imply that understanding the relationship between gendered language and topic requires examining both factors. Previous research does suggest that topic gender can affect source perception and message persuasion (Feldman-Summers et al., 2006; Pornpitakpan, 2004). Future research should attempt to understand what message factors introduce gender bias and how gendered associations with topic affect the relationship between gendered language, source credibility and message persuasion. Again, the salience of the message topic for the population as a whole may also cause participants to view sources as more credible and messages as more persuasive. For instance, it is possible that the population may be biased due to geographical location since most participants were from Nebraska or the surrounding states. Therefore, it may be that this population is more interested in gaining extra time, rather than gaining extra money.

Implications

Theoretical Implications

From a theoretical perspective, the results of this study add to the literature on the influence of gender roles and gender-role violations on source credibility and message persuasion. By extending to computer-mediated settings the considerations of gendered language's influence on creating gender role perceptions, this research provides some insight into the importance of language in influencing perceptions about the source and the message. In addition, the current study suggests that gender role conflict can occur even in CMC where other gender cues are reduced. More specifically, this research shows that violations can occur due primarily to linguistic deviations from the expected gender role. This is a crucial factor in looking at how online perceptions are created as other gender cues have now been shifted to language when the aid of avatars, pictures or other profile information is not available.

More generally, this research supports implications that gender role conflicts create a negative violation (Gill, 2004; Eagly & Deikman, 2005; Eagly & Karau, 2002), which in turn creates perceptions of low source credibility. More specifically this research suggests that when females use masculine language in CMC they will more likely be perceived as having low credibility whereas females conforming to their expected gender role by using feminine language are more likely to be perceived as credible. This research also offers some support that negative violations result in low message persuasiveness as well.

Importantly, the implications of this research suggest that reader gender is *not* a significant factor in perceptions of the message source or message's persuasiveness.

Participant gender may become an important factor in future research when studying messages written by both male and female sources. However, the only significant finding about reader gender was that women rated all sources (using either masculine or feminine language) as having higher credibility and being more persuasive than men did.

Inferences of this research also support the importance of considering psychological gender as conceptualized by Bem (1978). The findings presented here suggest that audience's psychological gender may be related to perceptions of credibility and persuasion, even though biological gender is not. More specifically, psychologically masculine users are more likely than other psychological gender groups to perceive female message sources as having low credibility, independent of the type of language used; however, for this same group, the messages will have higher persuasive power than for the other three psychological gender groups. This suggests that the message itself, not perceptions attributed to the source, is the motivating factor for this group.

Although this seems to oppose other findings from this study, explanations for these relationships may be inferred when closely examining the BSRI adjectives associated with being high on masculine characteristics and low on feminine characteristics. This group associates less with feminine adjectives in the BSRI that show support and desire for relationship building such as "friendly," "eager to soothe hurt feelings," "sensitive to needs of others" and "understanding." Therefore, this group less likely to worry about others or how they "feel" about one another. On the other hand, this group more strongly associates with masculine adjectives that support aggression and leadership such as, "acts as leader," "strong," "competitive" and "aggression." Therefore, the characteristics used to classify participants as masculine could also indicate what is

most important to this group regarding the messages; therefore they may be more likely to take the information from the message and determine if it will aid them in fulfilling any of these adjectives for their personal gender roles. In other words, they may not be as motivated to care about the source, but would be motivated by the message if it would give them a competitive edge.

The implications of this research do not support research that suggest women would be more comfortable with others who cross gender-role norms (Bosson, Taylor, & Prewitt-Freilino, 2006; Lamar & Kite, 1998); therefore, suggesting that gender role flexibility of users is not related to perceptions of source credibility or message persuasion. In other words, although someone has a high GRF score, indicating that he or she is comfortable portraying different genders in different situations, he or she is neither more nor less likely to evaluate sources that violate gender roles as more persuasive than people with low GRF scores. Although logically it would appear that one who is comfortable with enacting multiple gender roles would have a larger tolerance for gender role violations, this research challenges this assumption.

Practical Implications for Communicating via CMC

The results of this study suggest some important practical implications as well. The overarching implication from this research is that in CMC language styles do matter in influencing perceptions of source credibility and message persuasiveness. More specifically this is important for women using CMC when disseminating a call-to-action message. In CMC, specifically email, communicative cues such as body language, facial expressions and voice intonation may not be available. Therefore, the results from this study reinforce first and foremost that language is extremely important in creating

perceptions. Secondly, these results suggest that using feminine language is less likely to create a gender role violation; therefore, suggesting when a female is communicating via CMC, she should use feminine language styles to be viewed as highly credible and, in turn, for the message to be perceived as persuasive.

Another major implication that all writers should consider is understanding of the audience attributes and psychographics. Since there is a strong relationship between age and credibility, writers should understand who his or her key audience is and take extra precautions to enhance source credibility and message persuasiveness when addressing younger audiences. Since the results of this research suggests that younger audiences view sources as less credible overall, utilizing language that will enhance young age groups' perceptions will be beneficial for communicators. This research also suggests that using feminine language is related to higher credibility; therefore, using feminine language when addressing young age groups in CMC will likely aid in creating a high perception of source.

Limitations of Research

As always, one should exercise caution to avoid generalizing too much from any one study. Like any study this research has limitations, many of which were caused by time and resource restrictions as well as existing knowledge of gendered phenomena. The limitations of this study are addressed in this section and provide much of the framework for the following section that provides suggestions for future research. Due to recruitment limitations for this study, there was an unbalanced distribution of male and female participants. Therefore, although this study had 252 participants in the study, only 98 of those were used in data analysis to create an equal distribution of male and female

participants. This significantly reduces the statistical power that this study has as the *N* is significantly lower. Therefore, variables examined in this research may not emerge as significant even when there is a relationship and random error based on the preferences of the participants randomly chosen could show a significant relationship between two variables where no relationship actually exists, creating a false positive.

Another limitation that may come through the study design is that it utilized a between-subjects design. Any time when using a between subjects design participants may discover the purpose of the study, suffer from fatigue or have carry-over perceptions from the previous manipulation. Specifically for this study, perceptions carried over from the previous message could significantly impact the results as the study would not be capturing the “true” perceptions of the second message’s source and persuasiveness.

Additionally, not all of the messages used in this study were correctly identified at a .80 or higher correct agreement neither during pre-testing nor through the manipulation check captured in the study. If the manipulation were not perceived as the correct gender as intended, theoretically this would not create a violation and no differences would be detected. As previously mentioned, the low percentages of correct agreement may significantly influence why feminine messages created higher credibility and message perceptions than masculine messages as overall they were more often correctly identified.

Although this study attempted to utilize gender-neutral topics, the participant may have imposed gender, due to topic, if he or she believed the topic to be more masculine or more feminine. Topic salience has been found to influence source credibility and persuasion (Johnson & Eagly, 1989). Those who have low knowledge have been found to show greater agreement for the source, but usually do not process message arguments as

extensively as those with high-knowledge or high-interest in the topic (Eagly & Chaiken). The two topics – time management and money management – therefore, may not have been salient topics for some of the participants, thus influencing perceptions of source credibility and message persuasiveness. As a result, other topics salient to the population may provide very different findings.

In addition, due to the length and repetitiveness of the survey, participants may have become fatigued and not paid close attention to the differences in the GRF questions. Due to the length of the survey used, measurements of other possible confounding variables were not captured for this study. For instance, race, socioeconomic status and education were not measured in this study and could have an effect on how people perceive source credibility. Also, only three of the four scenarios for the GRF were used in this study. Using the full GRF may have shown different results when examining the relationship between gender fluency and source credibility perceptions.

An additional caveat that needs to be addressed is email usage. First, this study provided participants with a screenshot of an email message text. This skipped a step in message processing: seeing the message in an inbox with the author listed and deciding whether or not to open it. It may be that most people do not open messages from people they do not know; therefore, they might not have opened a message in which the only way to base source credibility assumptions is through the subject line and author. This study also does not take into account that previous email use and purpose of personal email could affect how people perceive credibility of all previously unknown email users. People who use email primarily for work may be more likely to evaluate sources as highly credible overall as they are receiving emails more often by highly credible

sources. On the other hand, someone who uses email as a way to stay connected to friends and family may receive more “junk” email such as forwards, spam, etc. or someone who has been a victim of online scams may view all email sources as having low credibility.

Finally this study was purposely designed to only evaluate messages from a female source to explore whether language styles could create a gender-role violation in CMC. However, this study can then only be generalized to differences in language use from female sources as no messages were attributed to male sources.

Suggestions for Future Research

From the results of this study, many questions remain regarding what affects credibility and message persuasiveness. First, this study only begins to explore the relationships between gendered language and source credibility and message persuasiveness. Research examining messages from male sources will help illuminate the relationships between gender violations and message perceptions. Previous research has found that males using either masculine or feminine language received higher compliance scores than women using either type of language. Therefore, further research should look at messages from both male and female sources, both using masculine and feminine language. This would allow for comparisons between gender groups and begin to explain differences in perceptions of source credibility and message persuasiveness between these two groups. Examining the relationship among gendered language, source perception and message persuasion using messages from both male and female authors will allow for more widespread generalization. This will also begin to further explain the relationship between psychological gender and source credibility. The current study

found that participants with male psychological gender rated both masculine language and feminine language message sources having low credibility. Since all messages were attributed to a female source, perceptions among those with different psychological genders may change as the gender of the source changes. Within future research, especially in the study briefly outlined above, researchers need to attempt to replicate the findings of this research with a larger sample size in which biological gender is equally distributed.

Second, previous research (Feldman-Summers, Montano, Kasprzyk, & Wagner, 2006) and this study have found that there is a relationship between topic, source credibility and message persuasion. Feldman-Summers et al. (2006) found that topics related more with one gender make sources of the same gender seem more credible. However, since there is a broad range of topics and even topics that seem to one person to be gender neutral may be perceived by another as gender biased, more research needs to examine this relationship and future studies using manipulated messages need to have an .80 or higher agreement.

In addition future research should examine the relationship among age, source credibility, message persuasion and overall Internet perceptions. More general questions about the affect of age on these perceptions may begin to fill in the picture of why two people can exhibit very different perceptions about the same source and message. Although age is usually a demographic measurement that is captured in many studies, it is rarely examined as the key predictive component in computer-mediated communication. The results of this study showed that age is a significant factor in predicting source credibility and message persuasion even when other variables were

controlled; therefore, more research needs to look at this relationship and try to begin explaining why age is such an important factor.

Finally, research should also examine these relationships in other CMC venues that are pertinent to Web 2.0, such as social networking sites (SNS) and microblogging sites such as Twitter. Since these many SNS and microblogging sites have a character restriction, examining how gender and credibility are portrayed in messages of 140 characters or less is important to understand as these sites have become a large marketing outlet for businesses and a place of collaboration for scholars. Examining questions such as: Is gender prevalent in restricted messages and Are there other factors that respondents examine to determine source credibility, may help fill in the larger picture of how source credibility is perceived in online spaces.

CHAPTER 6. CONCLUSIONS

As the Internet and World Wide Web increase in importance as a communication tool for both personal and professional dialogue, researchers have realized the need to explore many facets of this online space. Early researchers predicted that the Internet would be a “great equalizer,” that would level distinctions among class, race, gender etc. (Reingold, 1991; Coombs, 1998). However, this romantic idea of the Internet has received much debate as scholars have realized that the “great equalizer” may be doing just the opposite: creating disillusionment, fragmentation and a “digital divide” (Turkle, 1995; Turow, 1998; Wilson, Wallin & Reiser, 2003). Although the digital divide originally addressed the difference between those who had access to the new technology and those who did not, scholars now examine any gap between two groups where one group is benefiting from online resources, and the other is not (Wilson et al. 2003). This study found evidence supporting the notion that the Internet is not the “great equalizer” it was originally believed to be and found that perceptions and influences of gender are very prevalent online.

In line with Gender Role Theory and Expectancy Violation Theory this study hypothesized that the use of feminine language by a female source would be perceived as more credible and more persuasive than the use of masculine language in email messages. Analyses of this study suggest that the use of feminine language by a female in CMC is associated with higher credibility than the use of masculine language. Results also somewhat support the prediction that feminine language would be associated with higher perceptions of message persuasiveness. However, when message topic was taken

into account, the relationship between gendered language and message persuasiveness is no longer significant.

This research also suggests a relationship between psychological gender and source credibility, finding that masculine users (high in masculine characteristics and low in feminine characteristics) perceive sources as having low credibility, whether writing in masculine or feminine language. However, masculine users also perceived both masculine and feminine messages as persuasive. Therefore, although none of the other three psychological genders (feminine, androgynous and undifferentiated) were related to source credibility or message persuasion, masculine users were more likely to view sources as low in credibility, but messages as high in persuasion.

The significant interaction between gendered language and source credibility suggests that linguistic factors are an important piece of how perceptions are formed of sources in CMC, and that violations of gender roles create negative perception of source credibility and message persuasiveness. The impact of topic on the perceptions of sources and message persuasiveness, as suggested by previous research, was also found in this study (Feldman-Summers et al., 2006; Pornpitakpan, 2004). This study suggests that message topics themselves may be gendered, even though this study aimed at selecting gender-neutral topics. Similarly, this study found that participant age is a significant factor in perceptions of source credibility and message persuasiveness. Little research has previously examined the impact of this relationship. Therefore, examining the relationships between topic and age with source credibility and message persuasiveness may be a worthwhile avenue of exploration to further understand how perceptions are created online.

Although the results found many factors that influence perceptions of source credibility and message persuasiveness, this study did not find support for a relationship among biological gender of the reader, source credibility and message persuasion. In other words, neither male nor female were more apt to view sources as more credible or messages as being highly persuasive. Results also did not find a relationship among GRF, source credibility and message perception. Therefore, this does not imply that users who are comfortable deviating from gender roles themselves, are more comfortable than those who have low GRF scores when creating perceptions of source and message.

As the Internet continues to flourish and provide new ways of communicating online, understanding the ways in which perceptions of source and message are created in this space is important for users, especially for marketing communication. Future research is needed to continue exploring how gender and language influence perceptions of source credibility and message persuasiveness as this holds grave importance for public relations and marketing in getting consumers to trust his or her company and take action. The findings of this research are also important for women who use CMC either for interpersonal communication or when sending messages to a broader audience. As this research suggests, understanding topic gender, audience age and how gendered language influences perceptions is crucial in forming a message that creates high source credibility and message persuasiveness.

For scholars, the implications of this research suggest that gender roles and gender conflict are important factors in how perceptions of online messages are formed. Since this research found the biological gender was not related to how messages were perceived but did suggest that psychological gender may influence this relationship,

further research should examine gender role influences using Bem's (1997) Sex Role Inventory. Although this study did not find evidence to support a relationship between Gender Role Fluency and online perceptions of source and message, further research should continue to explore potential Gender Role Fluency effects using the full Martey (2006) GRF scale as well as other gender fluency measures used in previous literature (Signorella & Frieze, 1989; Smith, Noll & Bryant, 1999; Miller, Lewy & Peckham, 1997).

This research emphasizes the idea that perceptions in online spaces are important and that they are created, in part, in similar ways as offline perceptions. From this perspective, this thesis argues that understanding the influence of language in forming gender perceptions and gender roles online can aid women in their use of this technology. However, further research examining gender roles, gender conflicts and perceptions of source and messages is needed to further fill in the gaps to understanding how perceptions are created in online spaces.

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APPENDICES

Appendix A: Recruitment Message

Principal Investigator: Dr. Rosa Martey

GROW Nebraska Fans –Earn 10% off of your next online GROW Nebraska purchase by participating in the research study outlined below.

Participation in a Research Study

Earn 10% off of your next online GROW Nebraska purchase by participating in a Colorado State University research project interested in the effects of electronic discourse messages. The research project is being run by Dr. Rosa Martey and graduate student Ashley Blickenstaff from the Department of Journalism and Technical Communications.

Participation in this study is voluntary. Your answers will be kept confidential. There are no known risks associated with participating in this study. It takes approximately 30 minutes to complete the study. If you choose to participate in the study, you will be asked to read a message and answer a series of questions related to what you have read.

To participate in the study, please click on the link, **[link]** where you will participate in the study online.

If you are under 18 years of age, you may still participate in the study, but you must obtain parental permission beforehand. Contact Ashley Blickenstaff ([email]) to obtain the required parental consent form.

If you have any questions about this research, call Ashley Blickenstaff at [tel] or Dr. Rosa Martey at [tel].

Appendix B: Manipulation Messages

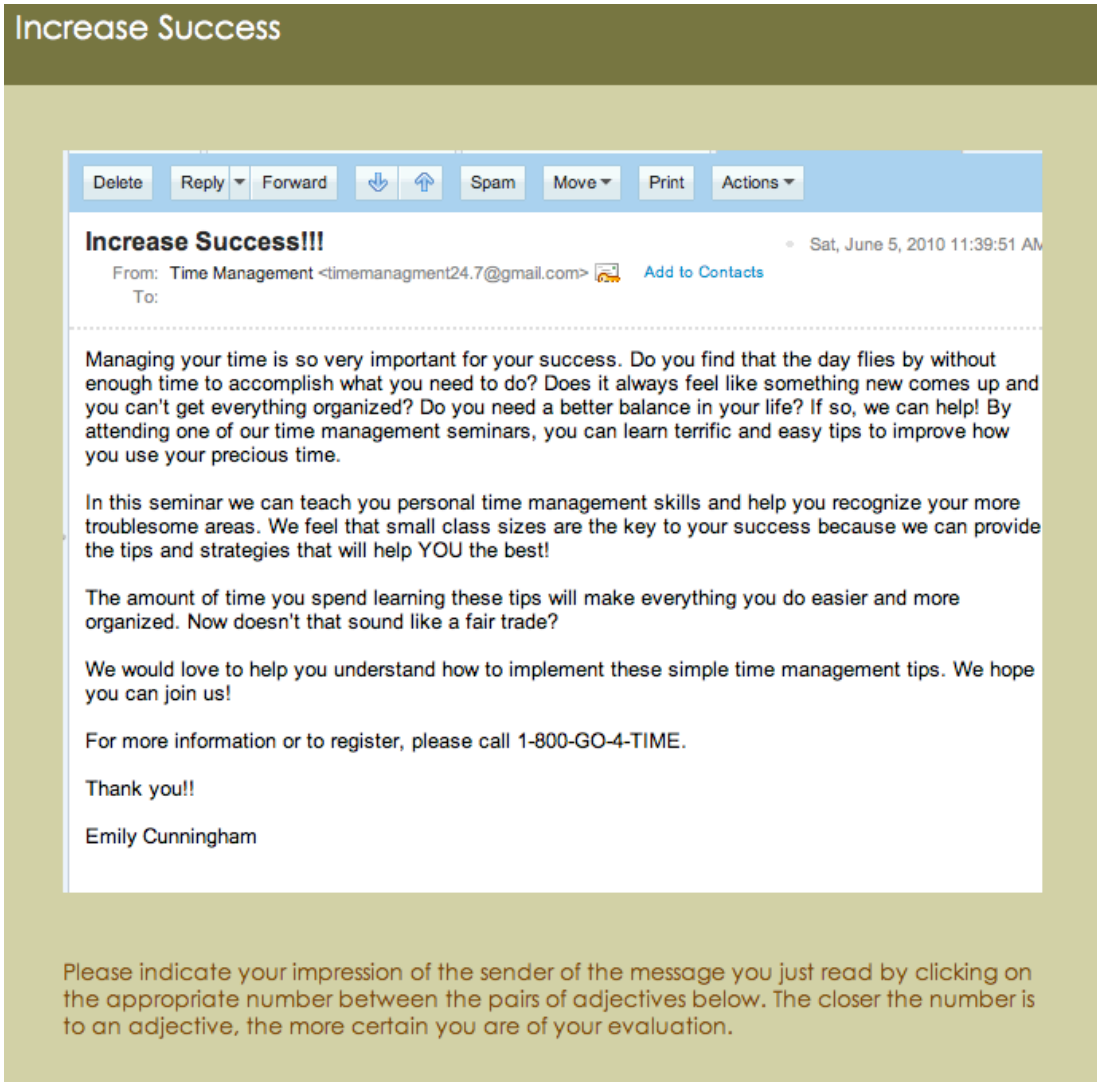


Figure 4.1 Feminine Message, Finance

Increase Success

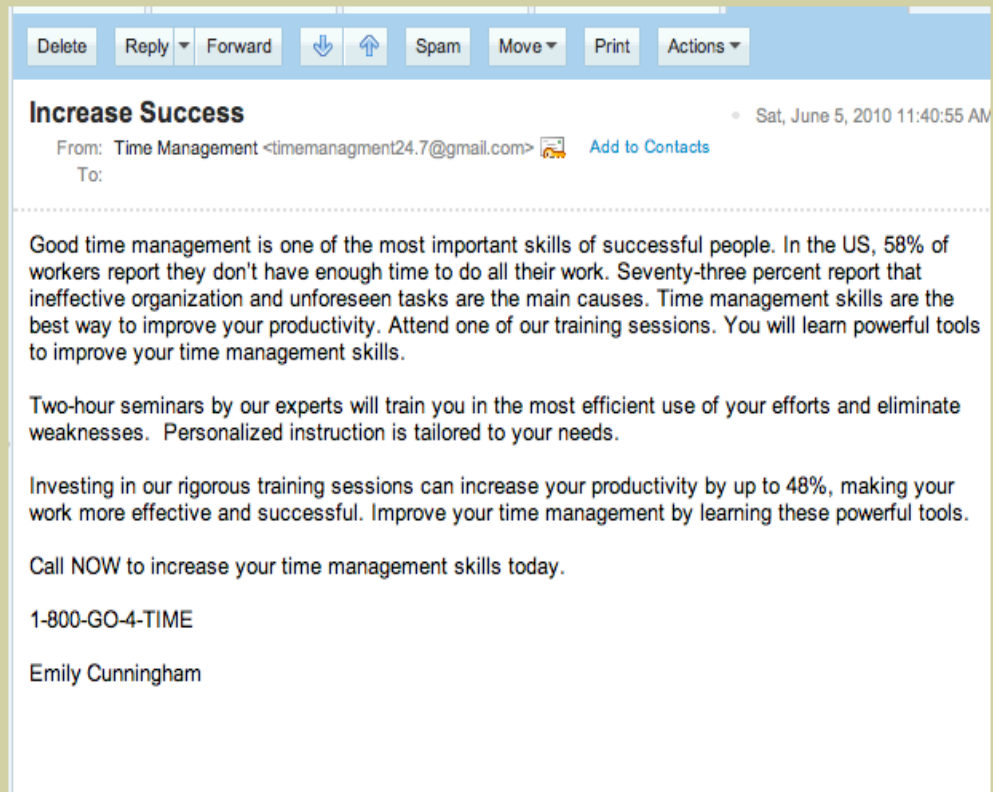


Figure 4.2 Masculine Message, Time Management

Increase Success

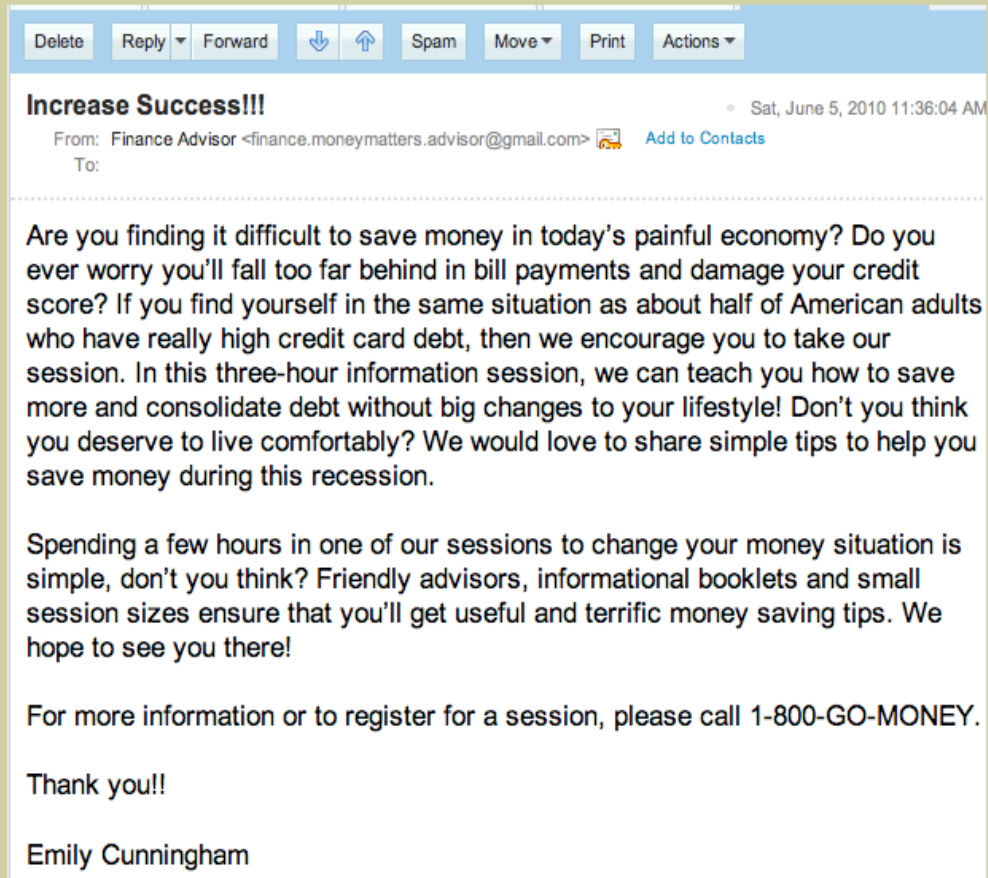


Figure 4.3 Feminine Message, Finance

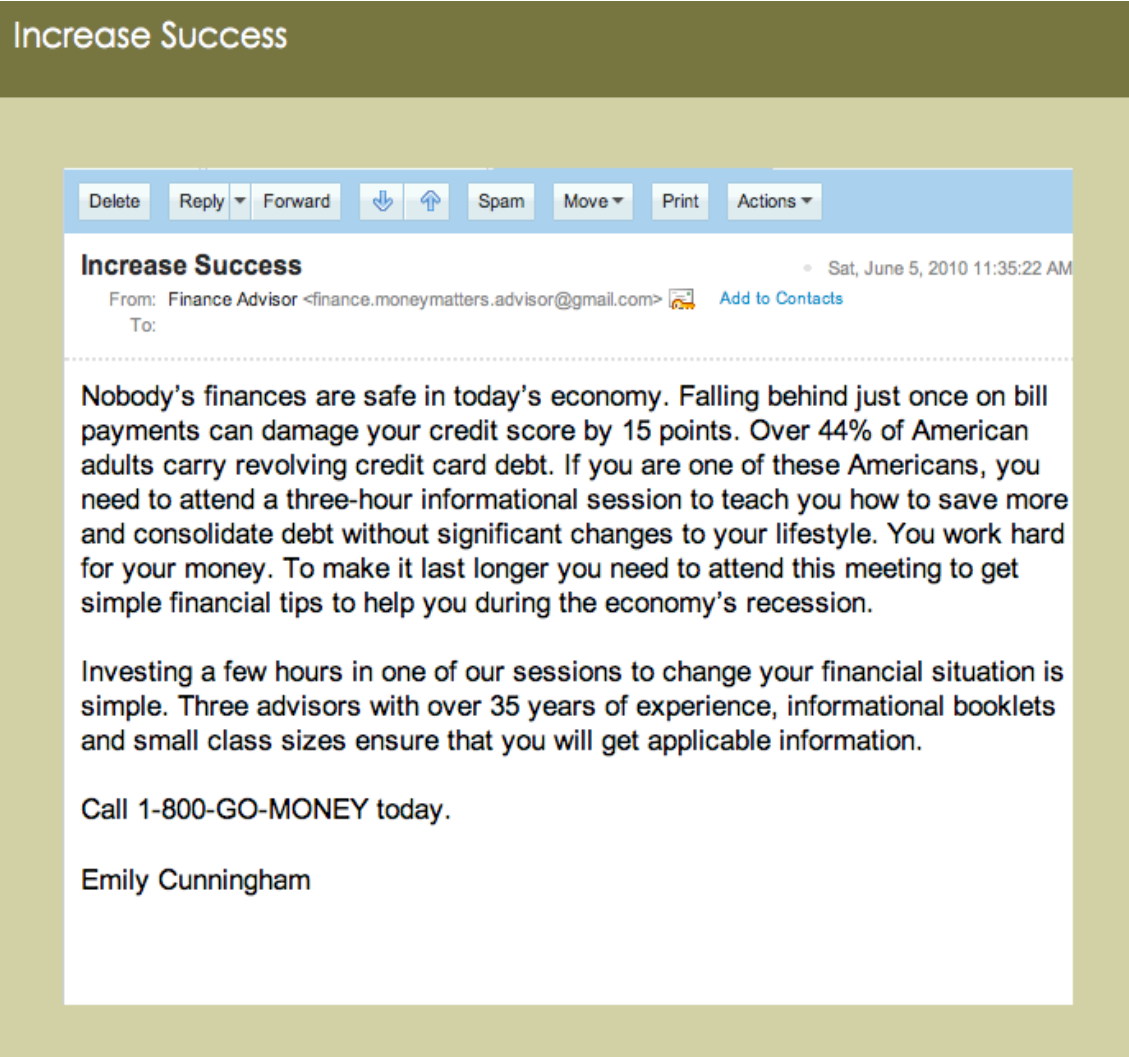


Figure 4.4 Masculine Message, Finance

Appendix C: Pretests

1. In order to randomize the questions in this survey, please simply click the top choice here to continue. This will allow us to assign you a distinct set of questions and help our data collection process.

- ☐ .
- ☐ .
- ☐ .
- ☐ .
- ☐ .
- ☐ .
- ☐ .
- ☐ .

Instructions

Please read the following message and answer the following questions. There are no right or wrong answers, so please answer the questions based on how YOU feel about the message.

[One of four manipulated messages]

2. Rate how you feel about the message's persuasiveness, on a scale from "very unpersuasive" to "very persuasive".

- ☐ Very Unpersuasive ☐ Unpersuasive ☐ Neutral ☐ Persuasive ☐ Very Persuasive

3. Was the message written by a male or female?

- ☐ Male
☐ Female

4. Rate how sure you are of your answer to the previous question on a scale from "very unsure" to "very sure".

- ☐ Very Unsure ☐ Unsure ☐ Neutral ☐ Sure ☐ Very Sure

5. In the box below, please explain why you believe this message was written by a male or a female author. What words, elements, or components of the message made you believe it was written by a male or a female author? What stood out as being particularly masculine or feminine about this message?

Appendix D: Draft of Survey Instrument

1. In order to randomize the questions in this survey, please simply click the top choice here to continue. This will allow us to assign you a distinct set of questions and help our data collection process.

- ☐ .
- ☐ .
- ☐ .
- ☐ .

Instructions

Please read the following message and answer the following questions. There are no right or wrong answers, so please answer the questions based on how YOU feel about the message.

[1st Manipulated message]

2. Please indicate your impression of the sender of the message you just read by clicking on the appropriate number between the pairs of adjectives below. The closer the number is to an adjective, the more certain you are of your evaluation.

Intelligent	1	2	3	4	5	6	7	Unintelligent
Untrained	1	2	3	4	5	6	7	Trained
Inexpert	1	2	3	4	5	6	7	Expert
Informed	1	2	3	4	5	6	7	Uninformed
Incompetent	1	2	3	4	5	6	7	Competent
Bright	1	2	3	4	5	6	7	Stupid

Cares about me	1	2	3	4	5	6	7	Doesn't care about me	
Has my interests at heart		1	2	3	4	5	6	7	Doesn't have my interests at heart
Self-centered	1	2	3	4	5	6	7	Not self-centered	
Concerned with me		1	2	3	4	5	6	7	Unconcerned with me
Insensitive	1	2	3	4	5	6	7	Sensitive	
Not understanding		1	2	3	4	5	6	7	Understanding

Honest	1	2	3	4	5	6	7	Dishonest
Untrustworthy	1	2	3	4	5	6	7	Trustworthy
Honorable	1	2	3	4	5	6	7	Dishonorable
Moral	1	2	3	4	5	6	7	Immoral
Unethical	1	2	3	4	5	6	7	Ethical
Phony	1	2	3	4	5	6	7	Genuine

Instructions

Please read the following message and answer the following questions. There are no right or wrong answers, so please answer the questions based on how YOU feel about the message.

[2nd Manipulated message]

3. Please indicate your impression of the sender of the message you just read by clicking on the appropriate number between the pairs of adjectives below. The closer the number is to an adjective, the more certain you are of your evaluation.

Intelligent	1	2	3	4	5	6	7	Unintelligent
Untrained	1	2	3	4	5	6	7	Trained
Inexpert	1	2	3	4	5	6	7	Expert
Informed	1	2	3	4	5	6	7	Uninformed
Incompetent	1	2	3	4	5	6	7	Competent
Bright	1	2	3	4	5	6	7	Stupid

Cares about me	1	2	3	4	5	6	7	Doesn't care about me		
Has my interests at heart			1	2	3	4	5	6	7	Doesn't have my interests at heart
Self-centered	1	2	3	4	5	6	7	Not self-centered		
Concerned with me			1	2	3	4	5	6	7	Unconcerned with me
Insensitive	1	2	3	4	5	6	7	Sensitive		
Not understanding			1	2	3	4	5	6	7	Understanding

Honest	1	2	3	4	5	6	7	Dishonest
Untrustworthy	1	2	3	4	5	6	7	Trustworthy
Honorable	1	2	3	4	5	6	7	Dishonorable
Moral	1	2	3	4	5	6	7	Immoral
Unethical	1	2	3	4	5	6	7	Ethical
Phony	1	2	3	4	5	6	7	Genuine

Please indicate how *you* feel about (subject topic action) by clicking on the appropriate number between the pairs of adjectives below. The closer the number is to an adjective, the more certain you are of your evaluation

Motivated	1	2	3	4	5	6	7	Unmotivated
Excited	1	2	3	4	5	6	7	Bored
Uninterested	1	2	3	4	5	6	7	Interested
Involved	1	2	3	4	5	6	7	Uninvolved
Dreading it	1	2	3	4	5	6	7	Looking forward to it

4. Think about the message you read about [manipulated message topic] (the first message). Although this message is signed by a female, do you believe that the language sounded more masculine or feminine?

☐ Masculine ☐ Feminine

5. Think about the message you read about [manipulated message topic] (the second message). Although this message is signed by a female, do you believe that the language sounded more masculine or feminine?

☐ Masculine ☐ Feminine

Rate yourself on each item, on a scale from 1 (very unlike me) to 7 (very like me).

1. Gentle

			Very unlike me		Very like me	
1	2	3	4	5	6	7

2. Acts as a leader

			Very unlike me		Very like me	
1	2	3	4	5	6	7

3. Tender

			Very unlike me		Very like me	
1	2	3	4	5	6	7

4. Has leadership abilities

			Very unlike me		Very like me	
1	2	3	4	5	6	7

5. Understanding

			Very unlike me		Very like me	
1	2	3	4	5	6	7

6. Dominant

			Very unlike me		Very like me	
1	2	3	4	5	6	7

7. Aggressive

			Very unlike me		Very like me	
1	2	3	4	5	6	7

8. Warm

			Very unlike me		Very like me	
1	2	3	4	5	6	7

9. Sensitive to needs of others

			Very unlike me		Very like me	
1	2	3	4	5	6	7

10. Willing to take a stand

			Very unlike me		Very like me	
1	2	3	4	5	6	7

11. Forceful

			Very unlike me		Very like me	
1	2	3	4	5	6	7

12. Assertive

			Very unlike me		Very like me	
1	2	3	4	5	6	7

13. Compassionate

		Very unlike me	Very like me			
1	2	3	4	5	6	7

14. Sincere

		Very unlike me	Very like me			
1	2	3	4	5	6	7

15. Helpful

		Very unlike me	Very like me			
1	2	3	4	5	6	7

16. Strong personality

		Very unlike me	Very like me			
1	2	3	4	5	6	7

17. Eager to soothe hurt feelings

		Very unlike me	Very like me			
1	2	3	4	5	6	7

18. Friendly

		Very unlike me	Very like me			
1	2	3	4	5	6	7

19. Competitive

		Very unlike me	Very like me			
1	2	3	4	5	6	7

20. Independent

		Very unlike me	Very like me			
1	2	3	4	5	6	7

Read the following situation and think carefully about what you would do if it happened to you. Think about how you would feel, what your attitude would be, and how you would describe yourself at that moment. Rate each adjective from 1 to 7 where 1 is “very unlike me” and 7 is “very like me”.

1. Think about the way you feel when you are talking to your close friends of your same gender. Just you and your friends are sitting and talking about your lives. As you listen and talk, how would you feel? What are you like interacting with them in this situation? What type of person are you when you are interacting with close friends of the same gender?

Imagine yourself in this situation, and rate each adjective for how well it would describe you IN THIS CONTEXT.

1. When I am talking to my close friends of the same gender, I am **gentle**.

Very unlike me Very like me

1 2 3 4 5 6 7

2. When I am talking to my close friends of the same gender, I **act as a leader**.

Very unlike me Very like me

1 2 3 4 5 6 7

3. When I am talking to my close friends of the same gender, I am **tender**.

Very unlike me Very like me

1 2 3 4 5 6 7

4. When I am talking to my close friends of the same gender, I have leadership **abilities**.

Very unlike me Very like me

1 2 3 4 5 6 7

5. When I am talking to my close friends of the same gender, I am **understanding**.

Very unlike me Very like me

1 2 3 4 5 6 7

6. When I am talking to my close friends of the same gender, I am **dominant**.

Very unlike me Very like me

1 2 3 4 5 6 7

7. When I am talking to my close friends of the same gender, I am **aggressive**.

Very unlike me Very like me

1 2 3 4 5 6 7

8. When I am talking to my close friends of the same gender, I am **warm**.

Very unlike me Very like me

1 2 3 4 5 6 7

9. When I am talking to my close friends of the same gender, I am **sensitive to the needs of others**.

Very unlike me Very like me

1 2 3 4 5 6 7

10. When I am talking to my close friends of the same gender, I am **willing to take a stand**.

- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
11. When I am talking to my close friends of the same gender, I am **forceful**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
12. When I am talking to my close friends of the same gender, I am **assertive**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
13. When I am talking to my close friends of the same gender, I am **compassionate**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
14. When I am talking to my close friends of the same gender, I am **sincere**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
15. When I am talking to my close friends of the same gender, I am **helpful**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
16. When I am talking to my close friends of the same gender, I have a **strong personality**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
17. When I am talking to my close friends of the same gender, I am **eager to soothe hurt feelings**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
18. When I am talking to my close friends of the same gender, I am **friendly**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
19. When I am talking to my close friends of the same gender, I am **competitive**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
20. When I am talking to my close friends of the same gender, I am **independent**.
- | | | | | | | | |
|---|---|---|----------------|---|--------------|---|--|
| | | | Very unlike me | | Very like me | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

2. Think about the way you feel when you are talking to your romantic partner. Just you and your partner are sitting and talking about your lives. As you listen and talk, how would you feel? What are you like interacting with him/her in this situation? What type of person are you when you are interacting with your romantic partner?

Imagine yourself in this situation, and rate each adjective for how well it would describe you IN THIS CONTEXT.

Imagine yourself in this situation, and rate each adjective for how well it would describe you IN THIS CONTEXT.

1. When I am talking to my romantic partner, I am **gentle**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	
2. When I am talking to my romantic partner, I **act as a leader**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	
3. When I am talking to my romantic partner, I am **tender**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	
4. When I am talking to my romantic partner, I have leadership **abilities**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	
5. When I am talking to my romantic partner, I am **understanding**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	
6. When I am talking to my romantic partner, I am **dominant**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	
7. When I am talking to my romantic partner, I am **aggressive**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	
8. When I am talking to my romantic partner, I am **warm**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	
9. When I am talking to my romantic partner, I am **sensitive to the needs of others**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	
10. When I am talking to my romantic partner, I am **willing to take a stand**.

		Very unlike me			Very like me		
1	2	3	4	5	6	7	

11. When I am talking to my romantic partner, I am **forceful**.
Very unlike me Very like me
1 2 3 4 5 6 7
12. When I am talking to my romantic partner, I am **assertive**.
Very unlike me Very like me
1 2 3 4 5 6 7
13. When I am talking to my romantic partner, I am **compassionate**.
Very unlike me Very like me
1 2 3 4 5 6 7
14. When I am talking to my romantic partner, I am **sincere**.
Very unlike me Very like me
1 2 3 4 5 6 7
15. When I am talking to my romantic partner, I am **helpful**.
Very unlike me Very like me
1 2 3 4 5 6 7
16. When I am talking to my romantic partner, I have a **strong personality**.
Very unlike me Very like me
1 2 3 4 5 6 7
17. When I am talking to my romantic partner, I am **eager to soothe hurt feelings**.
Very unlike me Very like me
1 2 3 4 5 6 7
18. When I am talking to my romantic partner, I am **friendly**.
Very unlike me Very like me
1 2 3 4 5 6 7
19. When I am talking to my romantic partner, I am **competitive**.
Very unlike me Very like me
1 2 3 4 5 6 7
20. When I am talking to my romantic partner, I am **independent**.
Very unlike me Very like me
1 2 3 4 5 6 7

3. Think about the way you feel when you are talking to one of your female teachers. Just you and your teacher are speaking one on one together. As you listen and talk, how would you feel? What are you like interacting with her in this situation? What type of person are you when you are interacting with your female teacher?

Imagine yourself in this situation, and rate each adjective for how well it would describe you IN THIS CONTEXT.

1. When I am talking to a female employer, female teacher or other female superior, I am **gentle**.

Very unlike me Very like me
1 2 3 4 5 6 7

2. When I am talking to a female employer, female teacher or other female superior, I **act as a leader**.

Very unlike me Very like me
1 2 3 4 5 6 7

3. When I am talking to a female employer, female teacher or other female superior, I am **tender**.

Very unlike me Very like me
1 2 3 4 5 6 7

4. When I am talking to a female employer, female teacher or other female superior, I have leadership **abilities**.

Very unlike me Very like me
1 2 3 4 5 6 7

5. When I am talking to a female employer, female teacher or other female superior, I am **understanding**.

Very unlike me Very like me
1 2 3 4 5 6 7

6. When I am talking to a female employer, female teacher or other female superior, I am **dominant**.

Very unlike me Very like me
1 2 3 4 5 6 7

7. When I am talking to a female employer, female teacher or other female superior, I am **aggressive**.

Very unlike me Very like me
1 2 3 4 5 6 7

8. When I am talking to a female employer, female teacher or other female superior, I am **warm**.

Very unlike me Very like me
1 2 3 4 5 6 7

9. When I am talking to a female employer, female teacher or other female superior, I am **sensitive to the needs of others**.

Very unlike me Very like me

1 2 3 4 5 6 7

10. When I am talking to a female employer, female teacher or other female superior, I am **willing to take a stand.**

Very unlike me Very like me
1 2 3 4 5 6 7

11. When I am talking to a female employer, female teacher or other female superior, I am **forceful.**

Very unlike me Very like me
1 2 3 4 5 6 7

12. When I am talking to a female employer, female teacher or other female superior, I am **assertive.**

Very unlike me Very like me
1 2 3 4 5 6 7

13. When I am talking to a female employer, female teacher or other female superior, I am **compassionate.**

Very unlike me Very like me
1 2 3 4 5 6 7

14. When I am talking to a female employer, female teacher or other female superior, I am **sincere.**

Very unlike me Very like me
1 2 3 4 5 6 7

15. When I am talking to a female employer, female teacher or other female superior, I am **helpful.**

Very unlike me Very like me
1 2 3 4 5 6 7

16. When I am talking to a female employer, female teacher or other female superior, I have a **strong personality.**

Very unlike me Very like me
1 2 3 4 5 6 7

17. When I am talking to a female employer, female teacher or other female superior, I am **eager to soothe hurt feelings.**

Very unlike me Very like me
1 2 3 4 5 6 7

18. When I am talking to a female employer, female teacher or other female superior, I am **friendly.**

Very unlike me Very like me
1 2 3 4 5 6 7

19. When I am talking to a female employer, female teacher or other female superior, I am **competitive.**

Very unlike me Very like me

1 2 3 4 5 6 7

20. When I am talking to a female employer, female teacher or other female superior, I am **independent**.

Very unlike me Very like me

1 2 3 4 5 6 7

Demographics

Please click on the appropriate answers or type in requested information.

1. My gender is:

- ☐ Male
- ☐ Female
- ☐ Unsure

2. My date of birth is:

Appendix E: Debriefing Statement

Thank you for your participation in this research on the effects of gendered language in computer mediated communication.

eCommerce Discount Code

Please use this code to redeem your 10% off any online GROW Nebraska purchases for participating in this survey: [code]. This code expires on December 31, 2010. Please visit www.buygrownebraska.org to use your 10% off code.

Activities, Purpose, and Hypotheses

During this research, you were asked to read a message and then rate the message and its author on a series of different adjectives.

The purpose of this research is to better understand if the gender of the language used in the message influences source credibility and message persuasiveness.

Deception

Although you were told that this research was to study the effects of electronic discourse messages, you were not told that the messages had been manipulated by gendered language. Revealing gender aspects before the research could have biased your answers; therefore, this information was left out of the research recruitment. However, this research is still studying the effects of electronic discourse messages.

Additional Resources

If you'd like to know more about the effects of gendered language in computer-mediated communication, you may be interested in the following: Bell, A. (2007). Style and the linguistic repertoire. In C. Llamas, L. Mullany, & P. Stockwell (Eds.), *The Routledge companion to sociolinguistics* (pp. 3-18). London: Routledge.

Contact Information

If you have questions, you may contact me at [email] or Dr. Rosa Martey at [email]. You may keep this document for your records.